Application System/400™

Users manual

SMS BlueNote

(BlueSeries SMS)

First edition for SMS BlueNote version 6.3 ptf0138

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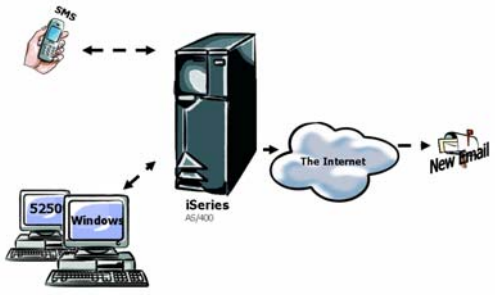
Chapter 1. Introduction to SMS BlueNote.

No one can doubt the advantages of SMS – It is the pure genius of SMS that allows you to send a message to any mobile GSM telephone!

And the advantages just grow when you integrate SMS into your existing systems. SMS messaging can be a natural part of the company information flow equaling telephone calls, e-mail and fax.

It is possible for "field based personnel" to send SMS messages direct to a colleague's PC. The incoming SMS messages are received by the message queue on the iSeries and the message can be both be read and processed by a program on your iSeries.

When you send SMS messages to "field based personnel" SMS BlueNote will communicate directly with the GSM operators. You can thus avoid the varying - and sometimes long - delivery times experienced, when sending SMS via the various Internet solutions available. You can key a GSM number direct or choose a recipient from a list. SMS BlueNote comes with its own web-client, or messages can be sent via Lotus Notes. You have also the option to monitor external Windows servers or workstations in the network.



Use SMS BlueNote for system monitoring and management.

SMS BlueNote can monitor every movement and process on your iSeries (AS/400). You can monitor system messages, message queues, message files, subsystem, job, user profiles and you can also make a conditioned monitor session. All those events can be sent as SMS messages to the GSM phone of the operator on duty.

You can answer OS/400 system messages using your GSM phone!

Use of the GSM unit makes it possible to send answers to system messages via an ordinary GSM phone. You can also use the SMS function to execute programs and functions on your iSeries.

Different companies equal different needs.

BlueNote Communicator
SMS can be sent and received in the iSeries. SMS Communicator integrates SMS to the company communication flow.

BlueNote Monitor
For full system monitoring. Monitor is operative on all levels: You can send replies to system messages, send program calls and program triggers to the iSeries (AS/400).

BlueNote Complete
SMS Communicator and SMS Monitor combined in one package.

SMS BlueNote can be connected to the message queue on the iSeries so that the system automatically sends system messages to the system operators GSM mobile phone. This way the system operator will always be able to follow the phases of a job on evening, nights and weekends, without being in the vicinity of a workstation.

All types of system messages can be sent. The system messages are prioritized after message queue and severity level.

User defined Message filter.

Registration of system operators. Including the possibility of giving priority to change duty hours. Duty reroute chain ensures full attention.

Alarm. All types of phones can be programmed to ring when serious system errors occur.

User defined communication protocols.

Runs in its own subsystem.

You have also the option to monitor external Windows (NT, XP & 2000) servers or workstations in the network.

SMS BlueNote' own data queues use minimal system resources.

API functions.

Inbound SMS can trigger programs.

SMS BlueNote is perfect, when you wish to maintain contact with your "men in the field" or want to send SMS messages in big numbers.

Messages can be sent via a calendar function to individuals or user groups.

The dispatch can be controlled precisely by date and time.

Complete integration with mail systems on the iSeries . Mail and messages can be supervised and transmitted to the GSM mobile phone.

Incoming SMS can be rerouted to message queues or as email.

SMS BlueNote' own job log gives a complete status on send messages.

Direct TCP/Gateway to the GSM operators SMSC. Especially for the users who need a solution that can handle large numbers of SMS' to be sent within a very short time limit.

SMS BlueNote can be used with a GSM terminal on any AS/400 or iSeries installation.

Some phone companies allow access via the telephone network with an ordinary PC modem. SMS BlueNote can be set to support your local SMS teleoperator in any country covered by the GSM system.

1.1. Construction of this manual

The two modules; ***" Communicator" and "Monitor"*** *equals in this manual;* ***SMS BlueNote.***

IBM Power™ Systems, System i™, iSeries™ *and* ***AS/400™*** *are in this manual regarded as brand names for* ***one and the same machine.*** *The terms are used at random.*
The terms ***GSM Modem*** *and* ***GSM Terminal*** *represents one and the same hardware. The correct technical term is* ***GSM Terminal****.*

SMS BlueNote is in fact a product with two types of end users. The one type is in need of system monitoring and system control. The other type is "just" in need of a solution for SMS communication. We have as a consequence tried to divide the chapters in the manual for these two types.

First there is a general description of SMS BlueNote and a description of the functions in the program. Chapter 2 is a detailed description of the installation procedures.

Chapter 3 describes the superior system structure of SMS BlueNote. It also describes how to create new users, group profiles and distribution lists in SMS BlueNote. Chapter 3. is furthermore used by the system operator when users, group profiles, and distribution groups are maintained.

Chapter 4. **Work with SMS Messages.** This chapter can be used as a user guide for the users who only are going to use the message function of SMS BlueNote. The users have the authorization to change and correct their own messages, but not to correct or change the system setup, the user profiles etc..

Finally Chapter 5 to 11 describes how system operators can use SMS BlueNote to setup and supervise the operation of the iSeries or the AS/400.

Chapter 11 is reserved for "the various stuff " that doesn't fit in elsewhere.

1.2. Principles of development

The following principles have been emphasized on the system-development:
Simplicity.
The operation of the system must be simple, in order to be fast and easy to learn.
Complete on-line check of all input, and built-in prevention of operation errors.
Few and compact files, that automatically adjust the specific users need of space.
Insensitivity to power failure.
Small and simple programs which are easy to develop further.
Complete SAA (System Application Architecture) standard.

1.3. Screen layout

All screen images in SMS BlueNote have been constructed in three parts:

1)
A header that shows the title on the subject you are presently working with. If you call a submenu it will display new layer new headers on top of the first. An image headline of previous images will always be visible, so you do not loose track of the process.

2)
The body of the screen shows the specific information as info- and/or input -fields. All fields' open to input will be underlined. When several occurrences are listed, you will be able to specify the values:

2=Change	Occurrences are displayed and changes can be made in the record.
3=Copy	The occurrence can be copied.
4=Delete	The occurrence can be deleted.
5=Display	The occurrence is shown and the record is protected against changes.

The system will inform you, whether it is allowed to change or delete in the field.

3)
The bottom of the screen shows the function keys and gives a brief description. All active function keys described at the bottom of the screen display observes the standard IBM terms:

F3=Exit	Exits function.
F4=Prompt	Displays a list of possible values.
F5=Refresh	Displays the image with possible changes.
F6=Create	Creates new records.
F9=Retrieve	Retrieves the previous command line.
F10=Display Items	Displays supplementary information with items.
F11=Info	Displays hidden text to the right of the screen image.
F12=Cancel	Cancels the image.
F19=Display Messages	Displays system messages to the user.

Finally there are a few special function keys that are implied, and which do not appear on the screen.

F1=Help	Gives entry to online help text.
Roll up	To be used in the synopsis to roll forward, if **more** is stipulated.
Roll down	To be used in the synopsis to roll backwards through the list.

SMS BlueNote has been created in a way that enables you to display a summary of possible values in all the fields, where specific values must be entered. This is done by activating the F4=Prompt with the cursor in the field. Then you can point out the value you want, and it will automatically be transferred back to the field.

1.4. Search in screen images

SMS BlueNote has a built-in search system that makes it very easy for the user to find, list and/or qualify information.

It is always possible to search on the specific user name, group name...ect. by pressing the F4 key in the field, where you need a listing.

1.5. Security in SMS BlueNote.

The security system has been divided into two parts. 1) the active part and 2) the Inactive security system.

When the system is inactive, all users have to maintain everything on the SMS BlueNote system

Active security system
When the security system is active, user profiles from OS/400's own security system will be used, where user profiles *SECOFR always have authorization to everything in **SMS BlueNote**. As a general rule the users only have authorization to information concerning them selves.

The following applies for the user profiles: *PGMR, *SYSOPR, *SECADM and *USER

Command	Description	1=Choose by list 2=Change 3=Copy 4=Delete 5=Display 6=Hold/Release 8=Work With F3=Exit F4=List F5=Update F6=Create F10=Send F11=Info F12=Cancel
WRKSMSVAL	Maintain system information	No authorization
WRKSMSUSR	Work with SMS BlueNote users	Only authorized to work with your own user profile: 1, F3, F12.
WRKSMSOPR	Work with SMS BlueNote operators	No authorization
WRKSMSMSG	Work with messages	Only for messages that have been sent, or received by the user:

		2,3,4,5,6, F3, F4, F5, F6, F11, F12
SNDSMSMSG	Send a SMS BlueNote message	F3, F4, F10, F12
WRKSMSGRPP	Work with group profiles	1, F3, F12
WRKSMSDTY	Work with duty hours	No authorization
ADDSMSDTYE	Add duty hours from IBM scheduler	No authorization
RMVSMSDTYE	Add duty hours from IBM scheduler	No authorization
WRKSMSMSGQ	Work with message queues	No authorization
STRSMSSBS	Start SMS subsystem	No authorization
ENDSMSSBS	End SMS subsystem	No authorization
UPDSMS	Update SMS from Agent Data	No authorization

Activating/deactivating the SMS BlueNote security system.

The security system will not be active, until there is one/or several group profiles, where "authorization group" has been set to 1=Yes.

SMS BlueNote's security system is activated/deactivated by the command WRKSMSGRPP (Menu number 5. Work with group profiles).

Create or Change an existing group profile. In the field Administrator group enter 1=Yes. The security system is then active.

If you wish the users with the user profile *PGMR, *SYSOPR, *SECADM or *USER to have access to maintain the SMS system, you must attach them through a distribution list. Select option **8=Work with user profiles** on a wanted group profile, where SMS authorization have been activated.

Regarding the installation. You can say that there are 3 steps in the procedure:

1) SMS BlueNote creates the libraries

SMS (This is the program library)
SMSDB (This is the database library)

SMS is the product prefix you type when you install SMS BlueNote – (point 5 in the quick installation see next chapter)

2) In the library **QGPL** we install: **BLUENOTE object type *MENU**

3) Finally we create the communication description

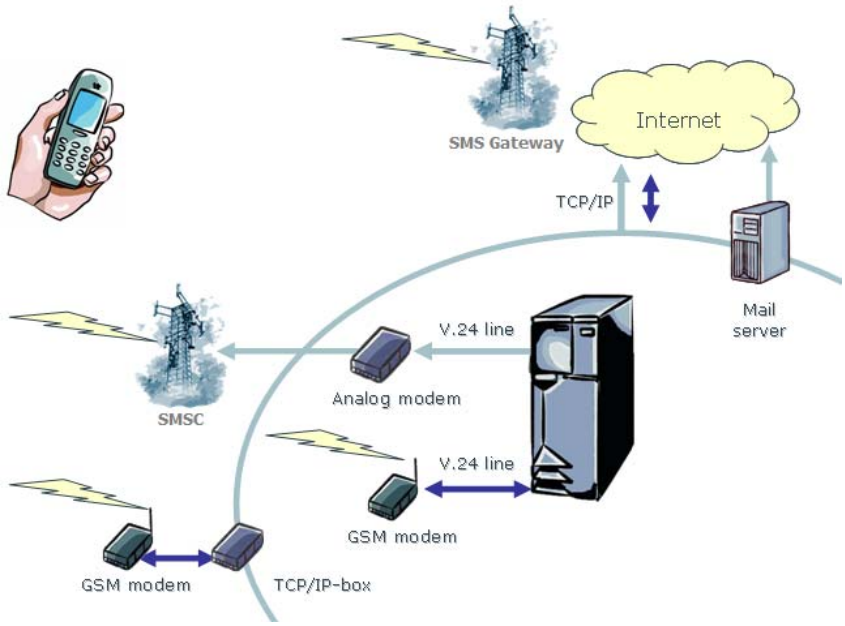
Line: SMS
Controller: SMS
Device: SMS

Chapter 2. Installation.

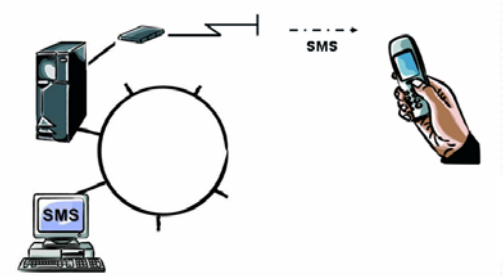
2.1. System requirements for SMS BlueNote.

The setup of SMS BlueNote can be varied in different scenarios:

- One-way SMS communication via an analog modem - or via a SMS Gateway.
- Two-way SMS communication via a GSM terminal (modem) - or via a SMS Gateway.
- SMS to E-mail.
- A combination of the above.



Scenario A) Send SMS via a dial up line:

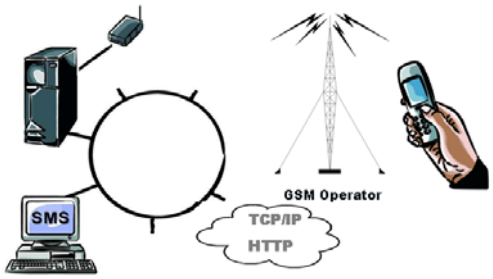


SMS messages are sent as one-way SMS from the iSeries, to the GSM phones or pagers.
All SMS messages are delivered via a normal phone line to the SMSC of the GSM operator. Delivery time is normally 12 seconds pr SMS.

This service is not available in all countries.
Ask you GSM operator if they support SMSC.

System requirement - Scenario A):
IBM iSeries with OS/400 V5R1 or later.
One V.24 line with a standard asynchronous PC-modem - or the internal IBM modem.

Scenario B)
Send and receive SMS via a HTTP gateway:



SMS messages are handled as one- or two-way SMS from the iSeries, to the GSM phones.
All SMS messages are delivered via a TCP/IP or HTTP gateway.

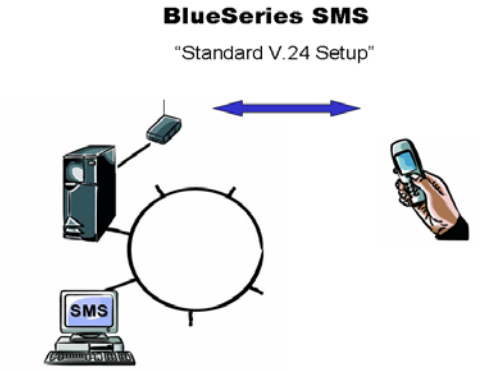
Delivery time is normally 3-5 seconds per SMS. Some gateways can handle as much as 40 SMS per second.

This service is not available in all countries. ***Ask you GSM operator.***

System requirement - Scenario B):

IBM iSeries with OS/400 V5R1 or later.
Active TCP/IP – you must be able to ping an URL.

Scenario C)
Send and receive SMS via a GSM terminal connected to a V.24 line



The SMS messages are sent from and to the iSeries via a GSM terminal. The teminal has its own SIM card.

The outgoing SMS messages are delivered to a GSM phone the similar way known from an ordinary GSM phone.

The inbound SMS messages for the iSeries also received on the GSM unit.

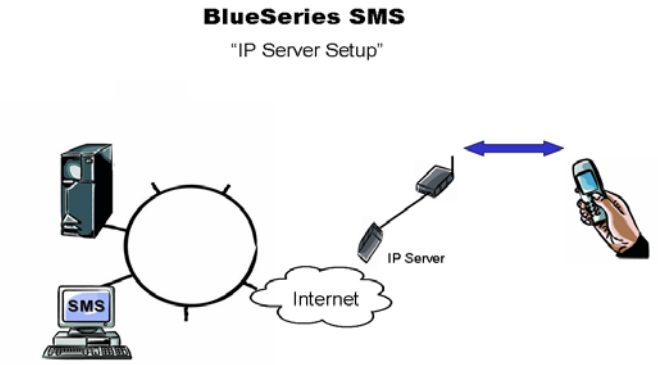
System requirement - Scenario C):
IBM iSeries with OS/400 V5R1 or later.
Minimum one GSM phone.

One V.24 communications adaptor

One GSM terminal with antenna and connection cable.

SIM card. ***You can use a SIM card from any GSM operator.***

Scenario D)
Send and receive SMS via a GSM terminal connected via an external Device Server using TCP/IP



The device server can be connetcted anywhere on the company network.

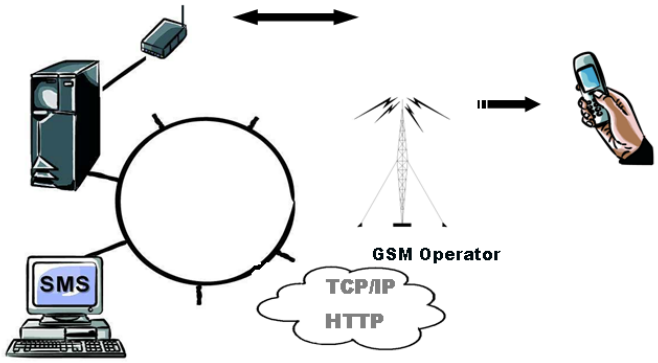
The Device Server can be used as a replacement for the V.24 adaptor.

This setup can also be used in cross country scenarios.

System requirement - Scenario D):

IBM iSeries with OS/400 V5R1 or later.
Minimum one GSM phone.
TCP/IP must be active on the iSeries.
One external device server
GSM terminal/modem with antenna.
SIM card. ***You can use a SIM card from any GSM operator.***

D) Combined setup.
Send SMS via a gateway - and send& receive via a GSM terminal:



You can have a scenario where the outgoing SMS messages are delivered via a gatway – this can e.g. be bulk SMS sent to customers whereas internal company SMS communication are handled via the GSM modem.

The decision to choose between the scenarios is related to the way the SMS messages are sent - and the actual cost involved.

We recommend you to take contact to your local GSM operator and check the prices in order to determine the most feasible solution.

2.2. Installation.

The installation will automatically activate SMS BlueNote for a 30-day trial period.
An authorization code is required to make the installation permanent.
The installation of the software itself will take approximate 10 minutes.

2.2.1. Install from media.

Install SMS BlueNote from a media e.g. CD or tape.

1. Load media.
2. Sign on as QSECOFR.
3. Type LODRUN [dev] <enter> (dev =*OPT, TAP01,DKT01…...).
4. Select SMS BlueNote and preferred language.
5. Type product prefix. Normally "SMS"
6. Enter the system values you are promted for.
7. Type GO BLUENOTE on a command line.
8. Start the SMS subsystem using option 17 on the SMS BlueNote main menu.
9. The next step is to connect the modem, GSM Terminal or SMS Gateway

SMS BlueNote is now operational from the 5250 environment.

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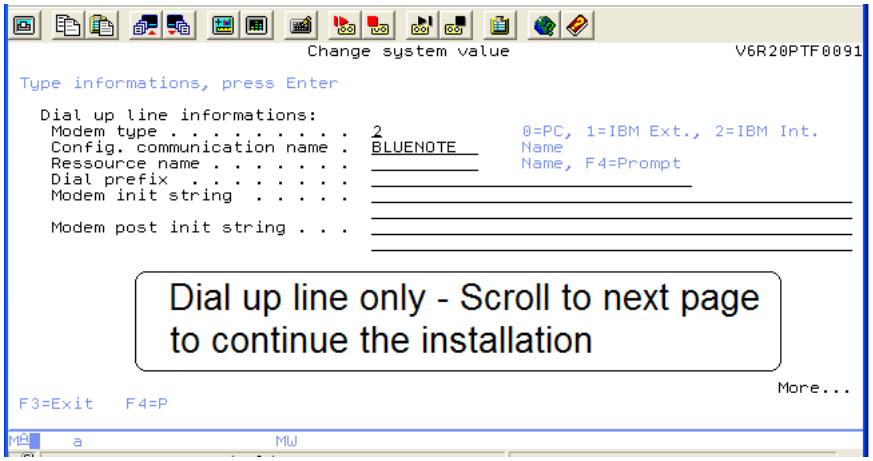
2.2.2. Install from web.

1. Download ZipSeries (distribution tool) from www.zipseries.com.
2. Make sure that NO library is named INSTBOX on your iSeries.
3. Enter the download area on www.SMS BlueNote.com.
4. Locate and Download the **SMS BlueNote** file to your desktop.
5. Doubble click on the file to upload it to the iSeries. Follow the guide until the upload is completed. (It is on some PC's necessary to temporarily deactivate the Firewall).
6. Sign on as QSECOFR on your iSeries.
7. Type INSTBOX/INSTALL on a command line. Follow the guide until the installation is completed.
8. Enter the System Values.
9. Type GO BLUENOTE on a command line.
10. Start the subsystem using option 17 on the main menu
11. The next step is to connect the modem, GSM unit or SMS Gateway

SMS BlueNote is now operational from the 5250 environment.

2.3. System setup.

You are now in the panel named "**Work with SMS system values"**
(Main menu option 15)


Change system value
V6R20PTF0091
Type informations, press Enter
Dial up line informations:
Modem type 2
0=PC, 1=IBM Ext., 2=IBM Int.
Config. communication name . BLUENOTE
Name
Ressource name . . . . . .
Name, F4=Prompt
Dial prefix . . . . . .
Modem init string . . . . .
Modem post init string . . .
Dial up line only - Scroll to next page
to continue the installation
More...
F3=Exit F4=P

"Dial up line informations" (are used in scenario A).
This is internal iSeries modem or any async modem connected to the V.24 line.

Modem type *): 0=PC, 1=IBM External., 2=IBM Internal. Use 0=PC as default unless you are certain it is an IBM/Multitech standard.
Please read also chapter 2.6.1

Config.Communication name :
Generic term for the Line-, Controller-, and Device description it is recommended to use SMS.
Note! Line, controller and device will not be generated until you have sent the first message

Resource name: Pres F4 to define the name of the line, the modem is using.
If no lines are displayed then use use the command;
WRKHDWRSC *CMN to locate available lines.
A Typical name for the line could be CMN08.

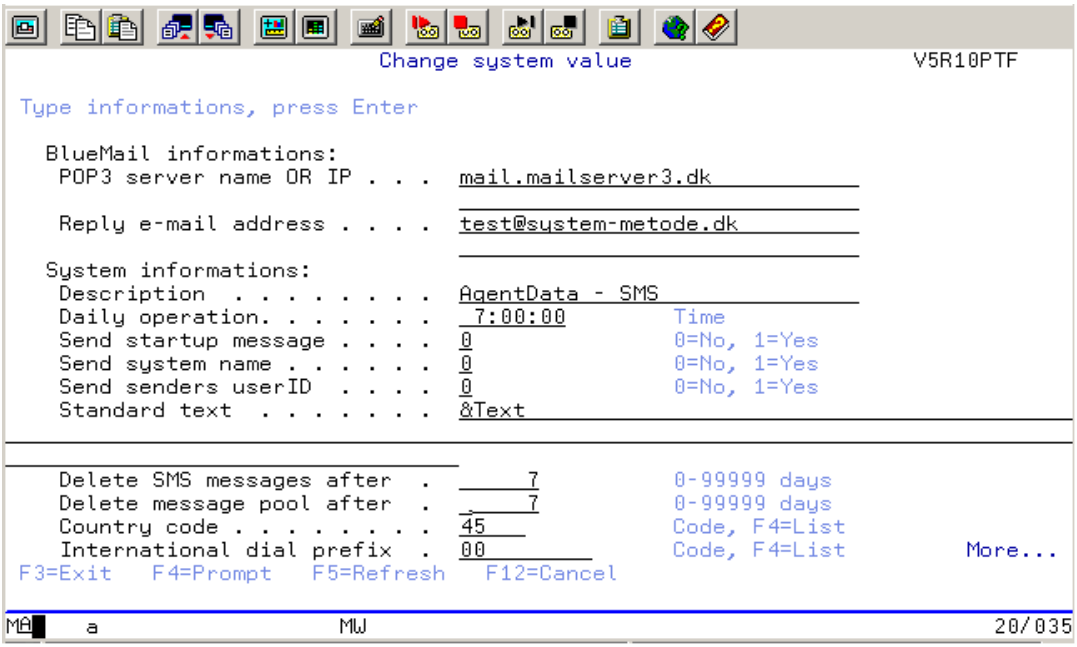
Dial Prefix): For a switchboard you will typically use 0W 0= "line out", W=Wait.
Other standards are 9w or 9, or 9,,

Modem Init String :
If your modem needs a special Init string, you must write it here.
This is normally not the case but IBM 7852, 7855 10, modems will need: AT H0 E0 &c0 &e4 &s0 X4

The string for the **internal modem** is: AT H0 &F E0 &s0 &d3 X3

Modem Post Init String *:
Normally blank. If your modem needs a special Init string for resetting the modem, you must type it here.

Scroll to Next panel


Change system value
V5R10PTF
Type informations, press Enter
BlueMail informations:
POP3 server name OR IP . . . mail.mailserver3.dk
Reply e-mail address . . . . test@system-metode.dk
System informations:
Description . . . . . AgentData - SMS
Daily operation. . . . . 7:00:00 Time
Send startup message . . . . 0 0=No, 1=Yes
Send system name . . . . . 0 0=No, 1=Yes
Send senders userID . . . . 0 0=No, 1=Yes
Standard text . . . . . &Text
Delete SMS messages after . 7 0-99999 days
Delete message pool after . 7 0-99999 days
Country code . . . . . 45 Code, F4=List
International dial prefix . 00 Code, F4=List
More...
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a MW
20/035

BlueMail information

Mail feature used for system monitoring and in conjunction with inbound SMS. (There is no reply option.)

POP3 Server name or IP address:
The address of your SMTP or POP3 server.

Reply e-mail address: This must be a valid Email address

System Information

Description: Type e.g. the name of your company.

Daily operation: Mark the time, you wish the system to clear old messages ect.

Send start-up message:
Determine if you wish the system to send a message after IPL. It will only be sent if the system operator is active.

Send system name:
Is only used when if you are surveying several machines . The name "is pasted onto the tail" of the messages.

Send sender user ID:
Is used if you want to send the OS400 user ID along with the message.

Standard Text
A standard text can be added to the SMS. The text can be added 1) in front of the text, 2) in the end of the text or 3) both.
Example:

1. *Greetings* **&Text**
2. **&Text** Company name
3. *Greetings* **&Text** Company name

&Text = The accual text message used in the SMS.

Delete messages after:

The number of days to pass before messages and schedules are deleted from MSG00.

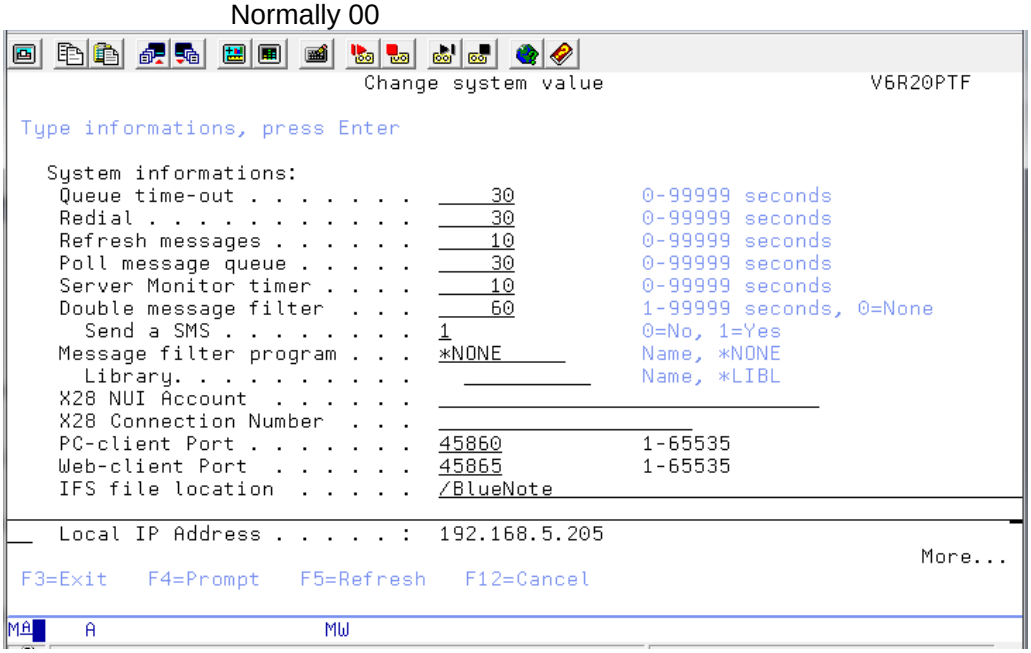
Delete message pool after:

The number of days to pass before the monitored messages are deleted from MSP00.

Country Code: Type the country code for the country where your iSeries is located physically; 44 for UK, 45 for Denmark etc.

International dial prefix:

Enter the prefix you use to dial OUT of your country. Normally 00


Change system value
V6R20PTF
Type informations, press Enter
System informations:
Queue time-out . . . . . 30 0-99999 seconds
Redial . . . . . 30 0-99999 seconds
Refresh messages . . . . . 10 0-99999 seconds
Poll message queue . . . . . 30 0-99999 seconds
Server Monitor timer . . . . 10 0-99999 seconds
Double message filter . . . 60 1-99999 seconds, 0=None
Send a SMS . . . . . 1 0=No, 1=Yes
Message filter program . . . *NONE Name, *NONE
Library. . . . . Name, *LIBL
X28 NUI Account . . . . . .
X28 Connection Number . . .
PC-client Port 45860 1-65535
Web-client Port 45865 1-65535
IFS file location . . . . . /BlueNote
Local IP Address . . . . . : 192.168.5.205
More...
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA A MW

Queue time out: Type the time out (in seconds), you wish the system to control if there is a message ready to be sent.

Re-dial interval: You can determine the interval (in seconds) for the system to wait if the operator is busy. PSTN modem only.

Refresh message *):

Some Teleoperators (using dial up line) will only give you the acknowledgement "Sending" or "Error" in the few seconds it takes to send a SMS message. "Sending" means the operator accepts the message. You want to see a "Sent" which means it is sent to the GSM phone. You will actually get the exact status next time you are contacting the same teleoperator for sending a SMS message. These fields give you the possibility speed up the process and make an automatic status check.

NOTE - I it will cost phone time i you use automatically refresh via dial up.

Poll Message queue:

Set the interval in seconds of how often you want SMS BlueNote to monitor on your system.

Double message filter:

This function can prevent sending identical system messages to the system operator. A program that ”loops” would create that situation. The period in which the system defines two messages as identical - is indicated in seconds. The "original" system message is now “black-listed”.
A SMS stating; that the double message filer has been triggered is sent to the System operator.

Send a SMS:

Can control if you want to forward the double message alert as SMS.

Message filter program:

You can in SMS BlueNote, set up a waste number of monitoring conditions, which will trigger a SMS message. But you can also write your own program for an even more detailed filter. The filter program will be called every time this message ID appears. The Parameter list to the program must be as follows:

1. Parameter: Level override to be returned (Output)
2. Parameter: Retrieve Message format RTVM0200(Input). For more information for format RTVM0200 see OS/400 manual "System Programmer's Interface Reference guide (SC41-8223) under "Retrieve Message (QMHRTVM) API".

X28 NUI Account:

Is only used for X28 communication.

X28 Connection number:

As above.

PC-Client Port: The Port Address for your Windows Monitor.

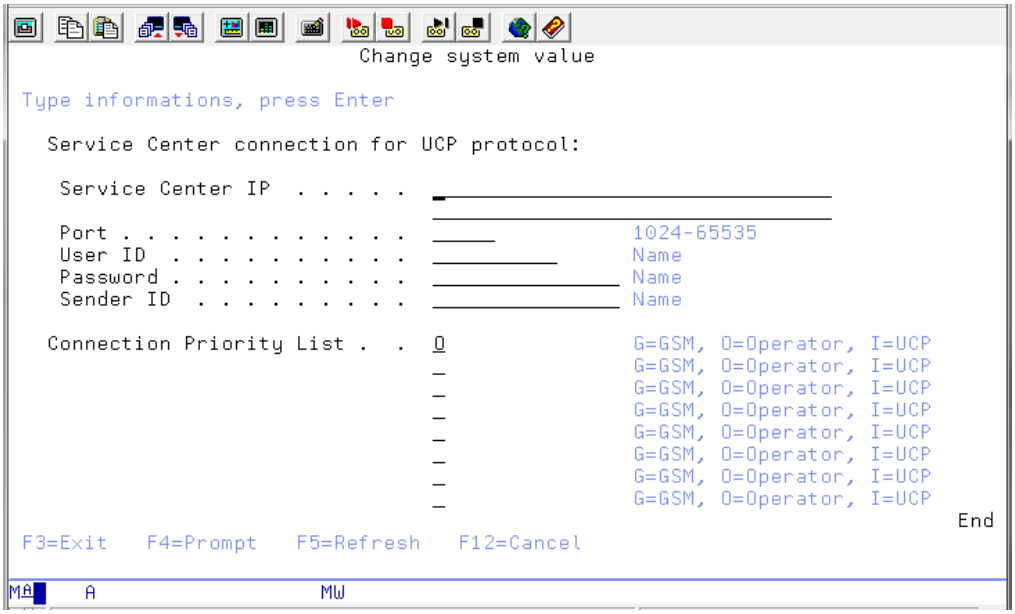
Web-Client Port: The Port Address for your web client.

IFS File location: The location of files used for the Web client.

Local IP address:

The iSeries IP address used when installing your Web client and Windows Monitor.

Scroll to the next panel - See next page


Change system value
Type informations, press Enter
Service Center connection for UCP protocol:
Service Center IP . . . . .
Port 1024-65535
User ID . . . . . Name
Password . . . . . Name
Sender ID . . . . . Name
Connection Priority List . . 0 G=GSM, O=Operator, I=UCP
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MW

Many of the major GSM operators can offer their customers a Large Scale or Bulk SMS Account. It is in short a service that enables the customer to send large amount of SMS in a very short time period. Speeds are ranging from 1 to 40 SMS pr second.

The customer will be able to display his phone number, company name or digits of his own choice.
The GSM operators will normally only allow answers from Mobiles from their own network but the system can be set up so replies can be received on a GSM unit.

This service can be accessed through HTTP or UCP gateways.
See chapter 2.6.3 for HTTP.

Service Center connection for TCP/IP (UCP Protocol only):

Service Center IP:	Provided from the operator,
Port	- " -
User ID	- " -
Password	- " -
Sender ID	Phone number, company name or digits of own choice.

Connection Priority List. G=GSM, O=Operator, I=UCP

You must use this feature to determine the primarily carrier for you SMS messages.
Use 'G' if you only use only one GSM modem connected to the system.

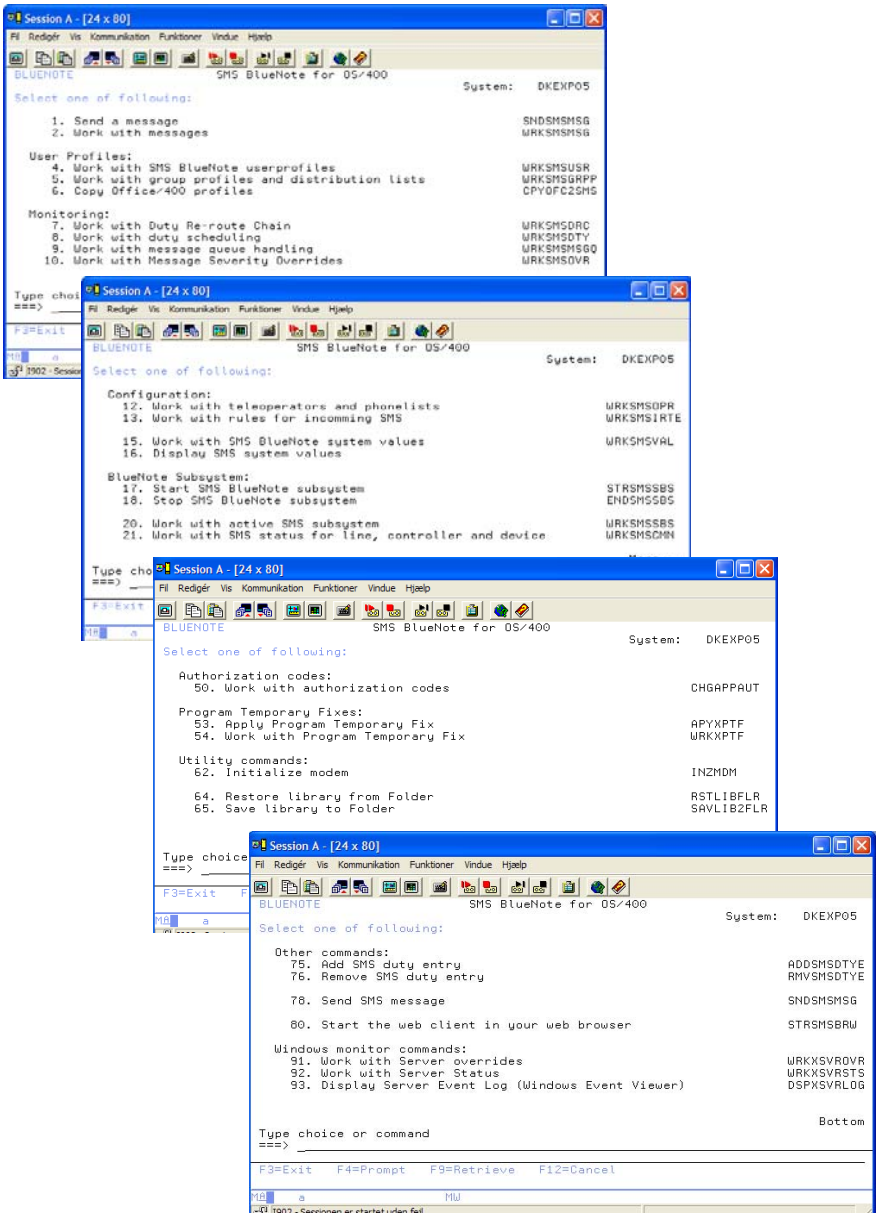
Use 'O' if you use dial in modems, HTTP gateways or multiple GSM lines.

Use 'I' if you use the Service Center Connetction (UCP only).

Press Enter to end the session.
SMS BlueNote is now successfully installed on your system!

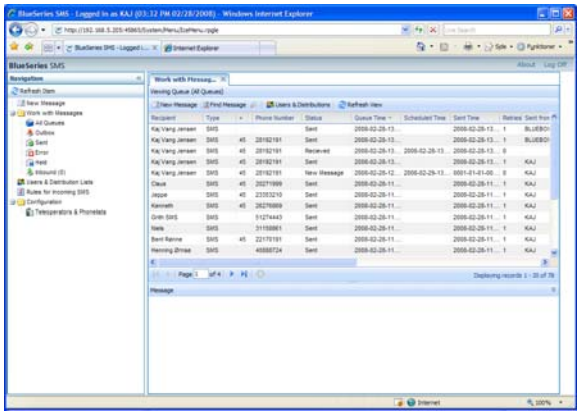
2.4. Display the main menu.

The main menu of the system will appear when typing the command:
GO BLUENOTE <enter> on a command line.


Session A - [24 x 80]
BLUENOTE
SMS BlueNote for OS/400
System: DKEXP05
Select one of following:
1. Send a message SNDSMSMSG
2. Work with messages WRKSMSMSG
User Profiles:
4. Work with SMS BlueNote userprofiles WRKSMSUSR
5. Work with group profiles and distribution lists WRKSMSGRPP
6. Copy Office/400 profiles CPYOFC2SMS
Monitoring:
7. Work with Duty Re-route Chain WRKSMSDRC
8. Work with duty scheduling WRKSMSDTY
9. Work with message queue handling WRKSMSMSGQ
10. Work with Message Severity Overrides WRKSMSOVR
Configuration:
12. Work with teleoperators and phonelists WRKSMSOPR
13. Work with rules for incomming SMS WRKSMSIRTE
15. Work with SMS BlueNote system values WRKSMSVAL
16. Display SMS system values
BlueNote Subsystem:
17. Start SMS BlueNote subsystem STRSMSSBS
18. Stop SMS BlueNote subsystem ENDSMSSBS
20. Work with active SMS subsystem WRKSMSSBS
21. Work with SMS status for line, controller and device WRKSMSCMN
Authorization codes:
50. Work with authorization codes CHGAPPAUT
Program Temporary Fixes:
53. Apply Program Temporary Fix APYXPTF
54. Work with Program Temporary Fix WRKXPTF
Utility commands:
62. Initialize modem INZMDM
64. Restore library from Folder RSTLIBFLR
65. Save library to Folder SAVLIB2FLR
Other commands:
75. Add SMS duty entry ADDSMSDTYE
76. Remove SMS duty entry RMVSMSDTYE
78. Send SMS message SNDSMSMSG
80. Start the web client in your web browser STRSMSBRW
Windows monitor commands:
91. Work with Server overrides WRKXSVROVR
92. Work with Server Status WRKXSVRSTS
93. Display Server Event Log (Windows Event Viewer) DSPXSVRLOG
Bottom
Type choice or command
===>
F3=Exit F4=Prompt F9=Retrieve F12=Cancel

Note: The Subsystem must be activated the first time you enter the SMS BlueNote main menu. Type 17 and press Enter.

Option 80. **'Start the web client in your web browser'** will bring you the webased version including menu options: 1, 2, 4, 5, 12 & 13.



2.5. Change Autorisation Codes.

For a permanent installation you need to enter an authorization code on menu option 50 'Work with authorization codes'.

You need to inform your distributor of:

a) iSeries model, serial number, processor feature code and system name.
b) The product type: SMS Monitor, SMS Communicator or SMS Complete.
c) Any extra modules like additional "Windows Monitors" or Large Scale Account.

Permanent licenses do only need new key codes when:

1) Any of the parmeters mentioned in a) above is changed.

2) You upgrade your license by adding an extra module.

3) You move the license to a completely new iSeries.

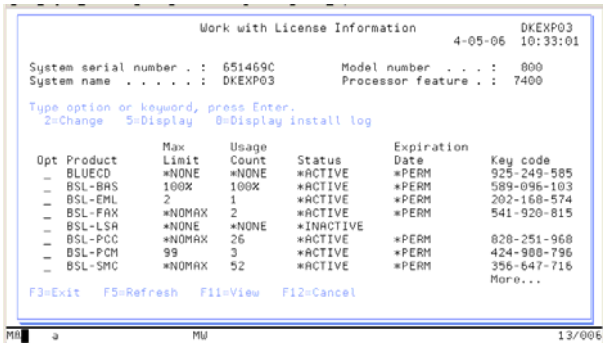
To enter the authorization key:
Select menu option 50 from the main menu, to access **Work with license information.** A list with all SMS BlueNote products will be displayed. You should look for the entries used for the SMS BlueNote license:

PKL-SMM = SMS Monitor

BSL-SMC = SMS Communicator

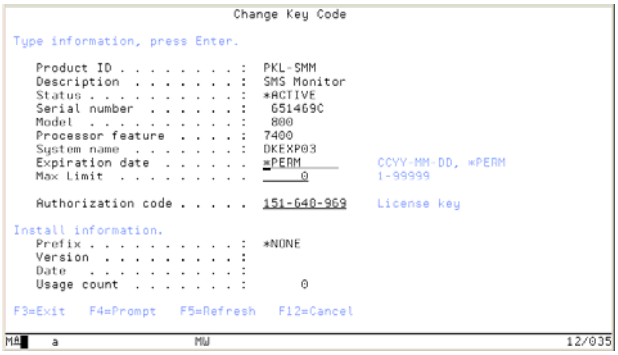
BSL-PCM = Windows Monitor

BSL-LSA = TCP/IP gateway for Large Scale Account (UCP only)


Work with License Information
DKEXP03
4-05-06 10:33:01
System serial number . : 651469C
System name . . . . . : DKEXP03
Model number . . . : 800
Processor feature . : 7400
Type option or keyword, press Enter.
2=Change 5=Display 8=Display install log
Opt Product Max Limit Usage Count Status Expiration Date Key code
_ BLUECD *NONE *NONE *ACTIVE *PERM 925-249-585
_ BSL-BAS 100% 100% *ACTIVE *PERM 589-096-103
_ BSL-EML 2 1 *ACTIVE *PERM 202-160-574
_ BSL-FAX *NOMAX 2 *ACTIVE *PERM 541-920-815
_ BSL-LSA *NONE *NONE *INACTIVE
_ BSL-PCC *NOMAX 26 *ACTIVE *PERM 828-251-968
_ BSL-PCM 99 3 *ACTIVE *PERM 424-988-796
_ BSL-SMC *NOMAX 52 *ACTIVE *PERM 356-647-716
More...
F3=Exit F5=Refresh F11=View F12=Cancel
MA a MW 13/006

Use 2= change to enter the key.

Type:
Expiration date
Max limit
Authorization code


Change Key Code
Type information, press Enter.
Product ID . . . . . : PKL-SMM
Description . . . . . : SMS Monitor
Status . . . . . : *ACTIVE
Serial number . . . . . : 651469C
Model . . . . . : 800
Processor feature . . . . : 7400
System name . . . . . : DKEXP03
Expiration date . . . . . *PERM CCYY-MM-DD, *PERM
Max Limit 0 1-99999
Authorization code . . . . . 151-640-969 License key
Install information.
Prefix . . . . . : *NONE
Version . . . . . :
Date . . . . . :
Usage count . . . . . : 0
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a MW 12/035

Please read License Terms.

2.6 Connect via GSM Terminal

SMS BlueNote comes with a number of predefined GSM operators for modem dial in and http gateways.
You will also find an “operator” labeled *GSM on the list in option 12 “Work with operators” This is the GSM Terminal that can be considered a “stand alone” operator.

Create your own local operator.
You have the possibility to add new operators. That applies for SMSC (dial in) operators, operators that uses HTTP gateway and GSM lines.

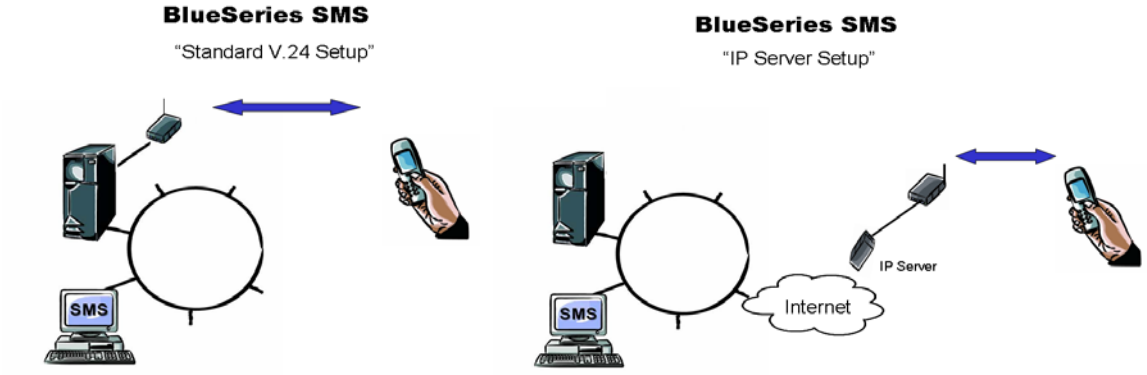
Log In. HTTP gateways and SIM card will require an active account.

GSM Hardware
The term ‘GSM modem’ can be used for both external and interal GSM modems. The correct term for the GSM hardware is *GSM Terminal.*

The GSM Terminal support two-way SMS communication.

The GSM Terminal is connected to the V.24 line or via a device server using TCP/IP.

See chapter 2.6.2 for connection via V.24 and chapter 2.6.3 for conection via TCP/IP.



Note: We recommend that you purchase the GSM hardware in your own country.

When ordering use the term; ***GSM Terminal*** *to avoid misunderstandings.*

2.6.1. Prepare the GSM Terminal.

The following hardware has been tested with SMS BlueNote:
Cinterion TC35, Cinterion MC35 and Cinterion TC65. (Recommended)

Siemens M1, Siemens M20, Siemens TC35, Siemens MC35 and Siemens TC65
(Siemens stopped their production of GSM Terminals in 2008).

Insert the SIM card in the GSM Terminal.

Make sure your SIM card works. *Use a normal mobile phone for test – insert the SIM card in the phone and send and receive a SMS.*

Prepare the GSM unit with the connection cable and antenna.

Assembly:
Insert the SIM card in the slot in the side of the GSM unit.

Insert **SIM** card.

Make sure to press the slide in.

Connect the:

GSM Antenna

Power supply
Some power supplies comes with variable power.
Set the power to 12 volt.

Connection cable
The connection cable is connected to the V.24 cable on the iSeries.
See chapter 11.3 for the specifications.

A **standard** serial cable can be used when connecting to a Device Server.

Note:

Cinterion/Siemens TC65, TC35 MC35, Falcom Tango and TWIST Terminals
The diode will flash when the power is on.

If no connection:

Check the PIN codes, the PUK code and all cable connections.

Is the SIM card fully inserted?

Also check the reception conditions. Can you send SMS, via an ordinary GSM phone from room where the GSM Terminal is located?

Check the SIM card in your GSM phone. Can it call/send SMS?

You are now ready to proced with the installation.

2.6.2. Connect the GSM Terminal using a V.24 line.

Requirements:

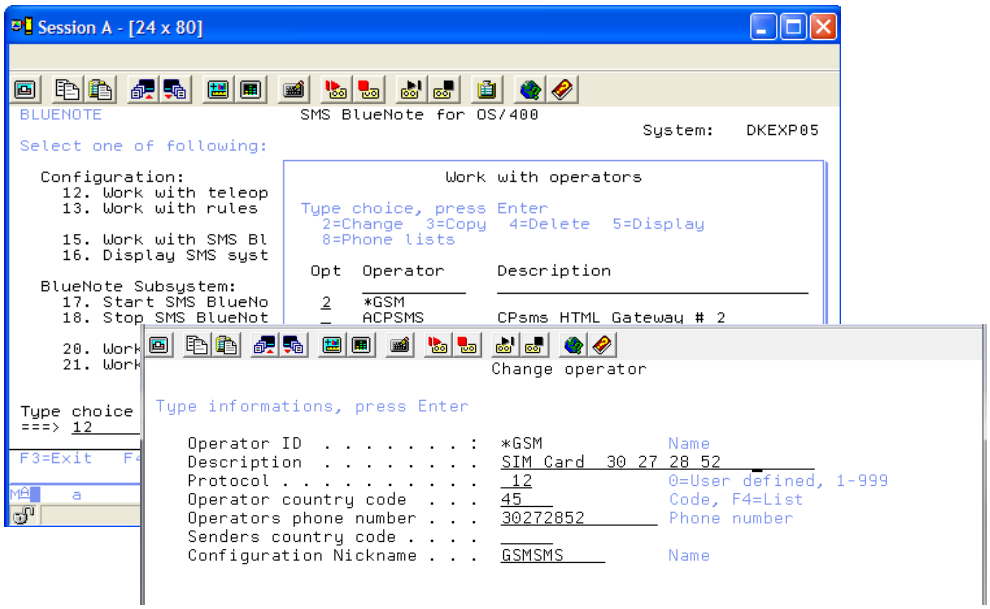
Software: SMS BlueNote

Hardware: One spare v.24 line used to connect to the GSM unit.
One GSM-Terminal
Connection cable - See chaper 11.2
One SIM card.

Installation:

Make sure that SMS BlueNote is installed and active.
Close the SMS BlueNote subsystem.
The GSM Terminal is prepared according to chapter 2.6.1.

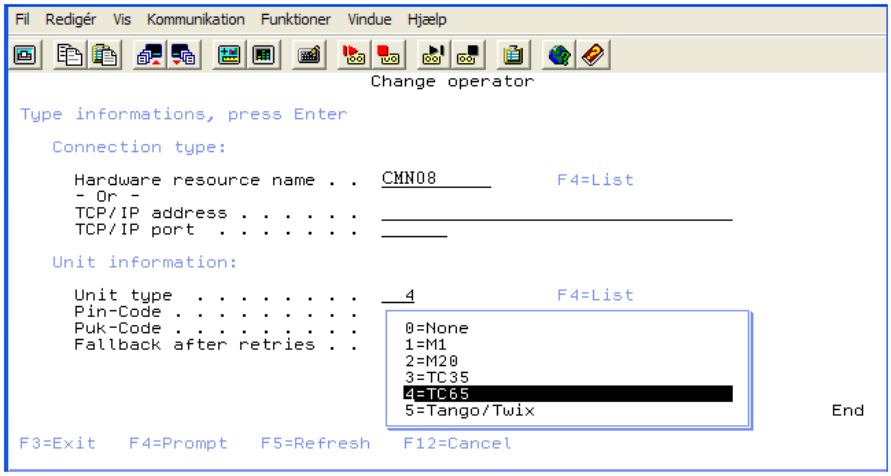
Enter option “12. Work with teleoperators, phone lists and GSM lines”
Use 2=Change on the operator ***GSM**


Session A - [24 x 80]
BLUENOTE
SMS BlueNote for OS/400
System: DKEXP05
Select one of following:
Configuration:
12. Work with teleop
13. Work with rules
15. Work with SMS Bl
16. Display SMS syst
BlueNote Subsystem:
17. Start SMS BlueNo
18. Stop SMS BlueNot
20. Work
21. Work
Type choice
===> 12
F3=Exit
Work with operators
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
8=Phone lists
Opt Operator Description
2 *GSM
ACPSMS CPsms HTML Gateway # 2
Change operator
Type informations, press Enter
Operator ID . . . . . : *GSM Name
Description . . . . . SIM Card 30 27 28 52
Protocol . . . . . 12 0=User defined, 1-999
Operator country code . . . 45 Code, F4=List
Operators phone number . . . 30272852 Phone number
Senders country code . . . .
Configuration Nickname . . . GSMSMS Name

Enter information regarding the GSM line.

Operator ID	*GSM is default for GSM line #1. Use * in the names e.g. *GSM2 for line # 2 (to X).
Description:	Enter information that is related to the SIM card.
Protocol:	Press F4 and select **GSM Modem.**
Operators country code:	Origin of the SIM card
Operators phone number:	The phone number of the SIM card
Senders country code:	Senders Server location. Used where the iSeries is in one country and the GSM line(s) in another country.
Configuration Nickname	The job name to be displayed in option 20 (WRKSMSSBS) *To be used if you connect multiple GSM lines.*

Scroll to next panel



Type the following information:

Hardware resource line. the	Press F4 to select the V.24 line that physically connects to GSM Terminal.
Unit type	Press F4 to select the GSM terminal you are using.
Pin-Code	Pin-Code of the SIM card
Puk-Code	Puk-Code of the SIM card

Press Enter and return to the main menu.

Select option 15 “Work with system values”. Scroll to the last panel.

Make sure that Connection Priority List is set to “G” G=GSM. *) see note below

Press Enter and return to the main menu.

Press 17 to start the subsystem.
The system is now ready to send & receive SMS.

Connect additional GSM Terminals

A) Use F6 Create a new line - or use 3=Copy on the *GSM line to create a new line.
Fill the fields as described in the above in this chapter and press Enter.

Note: “Operator ID” should be named *GSM2 , *GSM3 etc.

“Configuration Nickname” can be named SMSGSM2 , SMSGSM3 etc. (optional).

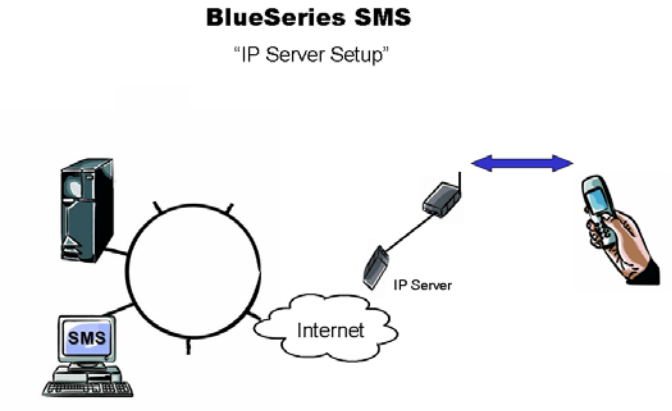
B) Add a ‘Phone list’ to the *GSM line. See chapter 2.7.1

C) Select option 15 “Work with system values”. Scroll to the last panel.

Make sure that Connection Priority List is set to “O” O=Operator. *)
Press Enter and return to the main menu.

**) Use ‘G’ if you only use only one (1) GSM modem connected to the system.*
Use ‘O’ if you use multiple GSM lines, combined with dial in modems or HTTP gateways

2.6.3. Connect the GSM Terminal using Serial Device Servers



A Serial Device Server is used to connect a GSM-unit to SMS BlueNote over a TCP/IP network, so you don't have the 8-meter V.24-cable restriction, nor the limits of a 15-meter antenna cable.
Rather the GSM unit might be placed any here in the network - even in another part of the world.

The following external Device servers are tested with SMS BlueNote;

1) Moxa : NPort 5110, 5210, 5410 or 5610 (Recommended)
2) Lantronix: MSS100

Installation:

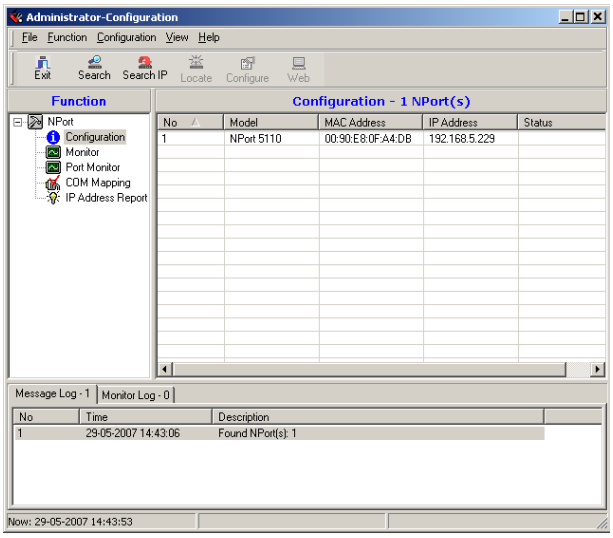
Make sure that SMS BlueNote is installed and active.
Close the SMS BlueNote subsystem.
Prepare GSM Terminal according to chapter 2.6.1.

You should carefully read the documentation enclosed with your Device Server. The panels in the following **QUICK guide** can have been changed since the production of this manual.

QUICK Guide – Moxa NPort 5110 & SMS BlueNote

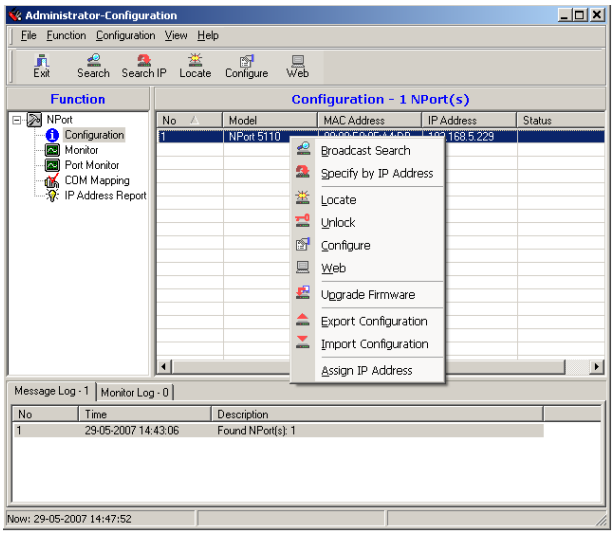
Read the NPort 5110 Quick installation guide and install the NPort Administrator from the Moxa CD.

Connect The Moxa NPort 5110 to your LAN/network and connect to the GSM terminal.



Open your NPort Administrator.
Press Search

Right click on the line and select Configure.



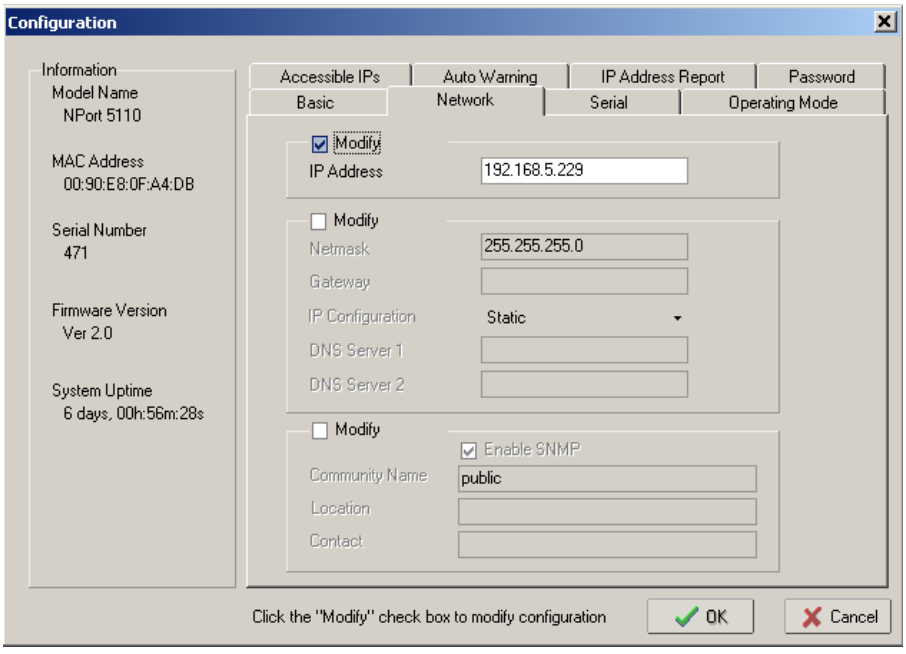
Note:
You can use “Search IP” and it will give you the current IP number of the NPport. It can be used, but the IP number will change instantly if you physically move the NPORT unit.

We recommend that you use a fixed IP number provided by your local Network administrator.

Select “Network” and “Modify IP-Address.”

Enter the IP-number provided by your local Network administrator.

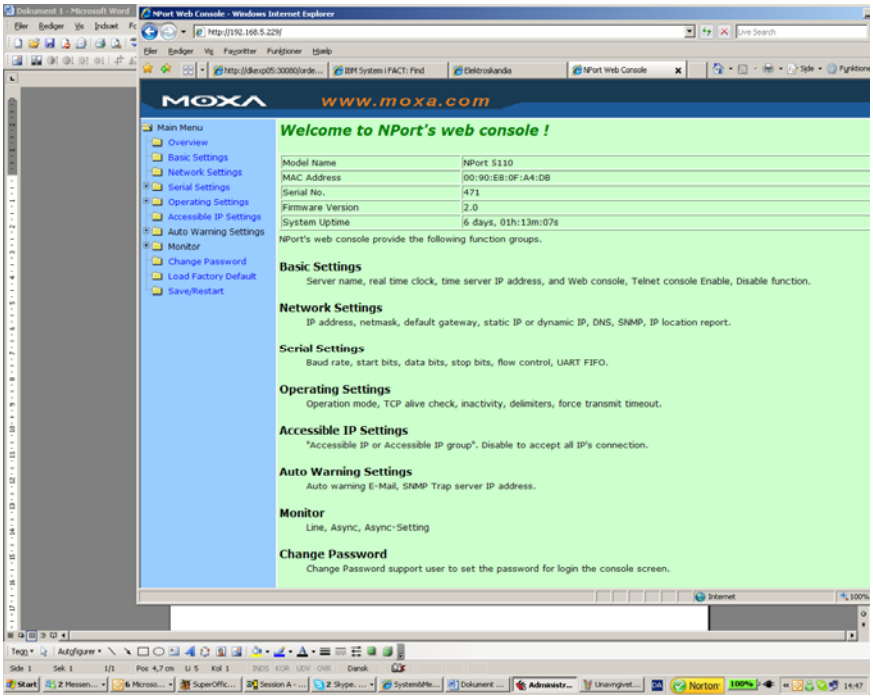
Default should be “Static”.



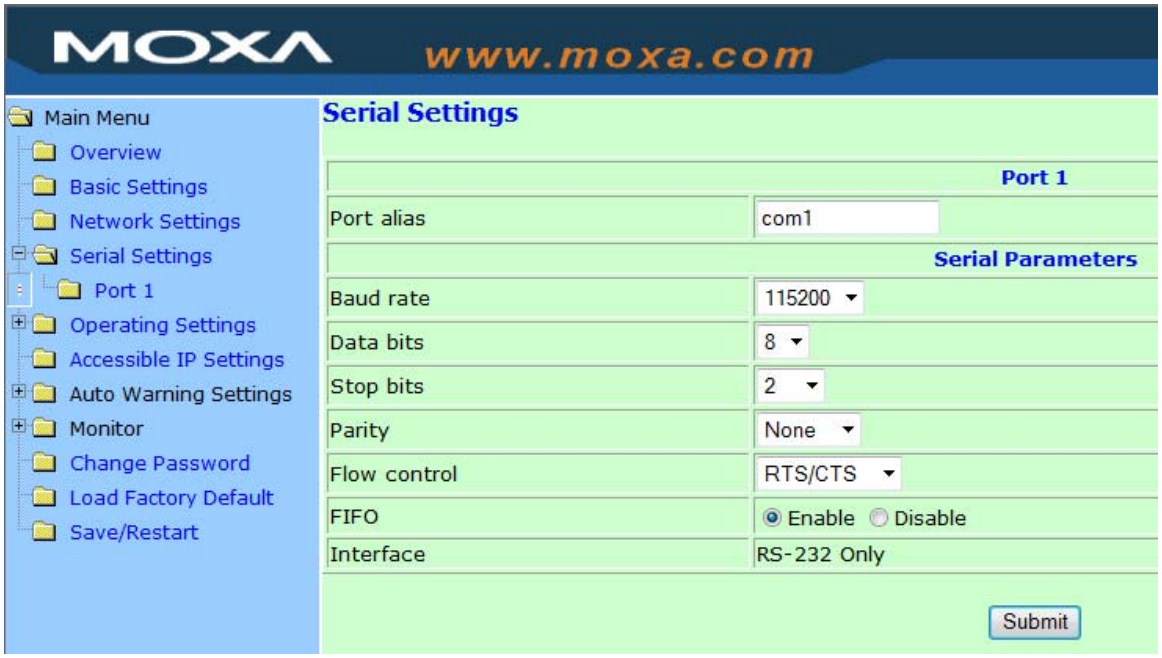
Click ‘OK’ to Exit the NPort configurator.

****

Type the IP number in a Browser in order to connect to the NPORT.



Select ‘Serial Settings / Port 1’
Fill in the parameters.
Press Submit



Selecet ‘Operating Settings / Port 1’
Set all the parameters according to this example
Press submit

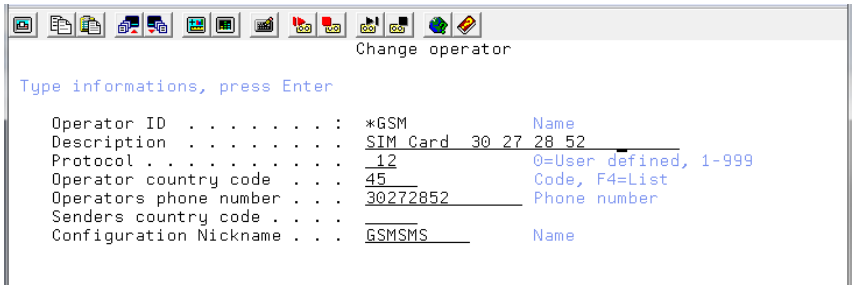
Please Note.
The ‘Local TCP Port’ number set here is the same port number you use in the SMS BlueNote setup. (It equals ‘TCP/IP Port’ see next page)

Select Save/Restart and press Submit.

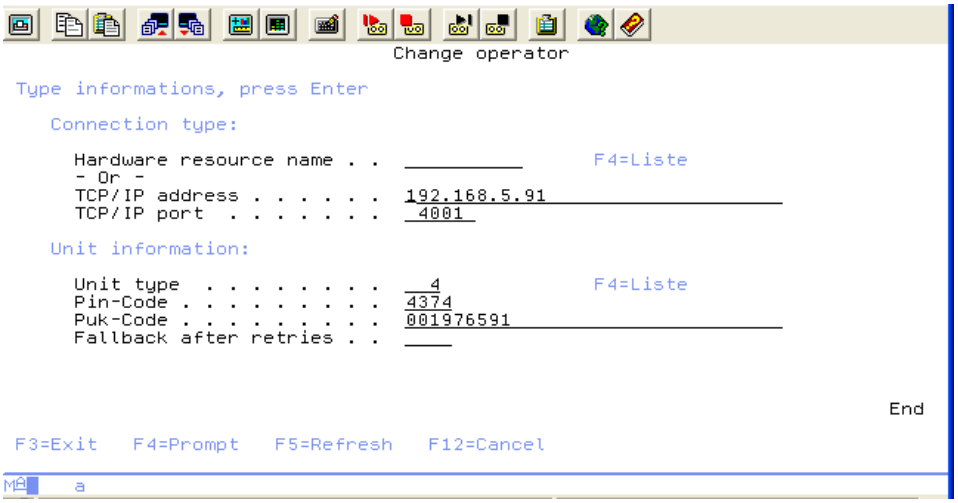
Sign on to a 5250 panel.
Write Go Bluenote
Select option 12. “Work with teleoperators, phone lists and GSM lines”
Use 2=Change on the operator ***GSM**

Enter information regarding the GSM line.

Description:	Enter information that is related to the SIM card.
Protocol:	Press F4 and select **GSM Modem.**
Operators country code:	Origin of the SIM card
Operators phone number:	Number of the SIM card
Senders country code:	Senders office location Used where the iSeries is in one country, and the GSM line(s) in another country.
Configuration Nickname	The job name to be displayed in WRKSMSSBS *To be used if you connect multiple GSM lines.*


Change operator
Type informations, press Enter
Operator ID . . . . . : *GSM Name
Description . . . . . SIM Card 30 27 28 52
Protocol . . . . . 12 0=User defined, 1-999
Operator country code . . . 45 Code, F4=List
Operators phone number . . . 30272852 Phone number
Senders country code . . . .
Configuration Nickname . . . GSMSMS Name

Scroll to next panel


Change operator
Type informations, press Enter
Connection type:
Hardware resource name . . __________ F4=Liste
- Or -
TCP/IP address 192.168.5.91
TCP/IP port 4001
Unit information:
Unit type . . . . . 4 F4=Liste
Pin-Code 4374
Puk-Code 001976591
Fallback after retries . . ____
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
a

Enter the following information

TCP/IP address.	The IP number of the device server.
TCP/IP Port.	The port used to connect to the device server.
Unit type	Use F4 to locate your GSM Terminal.
Pin-Code	Pin-Code of the SIM card
Puk-Code	Puk-Code of the SIM card
Fallback after retries	Blank (not used in GSM modems)

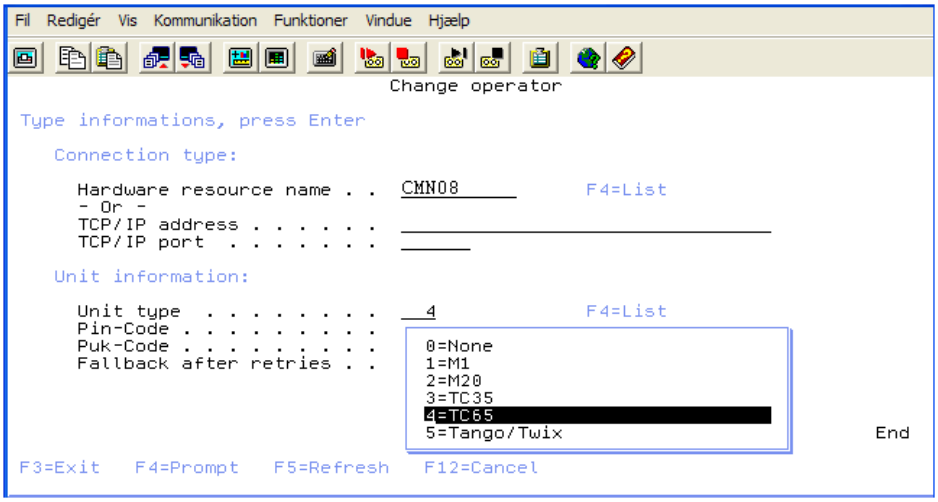
Press Enter and return to the main menu.

Select option 15 “Work with system values”. Scroll to the last panel.
Make sure that Connection Priority List is set to “G” G=GSM *)

Press Enter and return to the main menu.

Press 17 to start the susbsystem.

The system is now ready to send & receive SMS.


Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Connection type:
Hardware resource name . . CMN08 F4=List
- Or -
TCP/IP address . . . . . ____________
TCP/IP port . . . . . _____
Unit information:
Unit type . . . . . 4 F4=List
Pin-Code . . . . . 0=None
Puk-Code . . . . . 1=M1
Fallback after retries . . 2=M20
3=TC35
4=TC65
5=Tango/Twix
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel

Configure the setup

Port numbers are different from device server to device server:

- Moxa: NPort 5110, 5210, 5410 or 5610 uses any port.
- Lantronix MMS100 uses port 3001
- Moxa : Nport –DE311 uses any port but defaults to 3002

Configure the device server: You must use the configuration tools which are available but individual for each Device Server – Also refer to the specific Device Server documentation that comes with the product.

Some concepts:

- Use static IP address, avoid the DHCP feature since the server address might change when you upgrade you network

---

Connect additional GSM Terninals

A) Use F6 Create or use 3=Copy on the *GSM line to create a new line.
Fill the fields as described in the previous chapters and press Enter.

Note: "Operator ID" should be named *GSM2 , *GSM3 etc.

"Configuration Nickname" can be named SMSGSM2 , SMSGSM3 etc. (optional).

B) Add 'Phone list' to the *GSM operators. See chapter 2.7.1

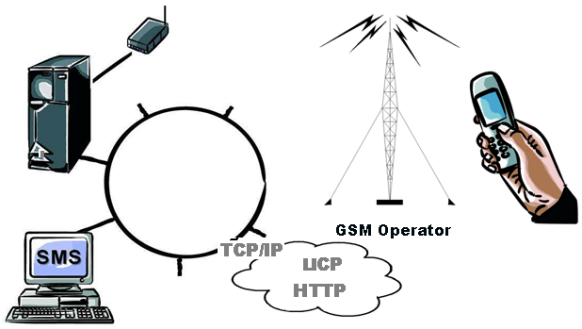
C) Select option 15 "Work with system values". Scroll to the last panel.

Make sure that Connection Priority List is set to "O" O=Operator. *)
Press Enter and return to the main menu.

**) Use 'G' if you only use only one (1) GSM modem connected to the system.*
Use 'O' if you use multiple GSM lines, combined with dial in modems or HTTP gateways

2.7 Connect via HTTP or UCP Gateways

See menu option 12 “Work with teleoperators, phonelists and GSM lines”
This menu option handles tree types of SMS carriers:



*GSM (GSM Terminals with SIM card)
SMSC dial up via modem
HTTP Gateways

Supported HTTP Gateways are:

Clickatell	1-way SMS Worldwide
CPSMS	1-way SMS Denmark
TDC	1-way SMS Worldwide
SMSPRO	2-way SMS Wordwide
SMS1919	1-way SMS Norhen Europe and 2-way SMS Denmark.
IMEZ	1-way SMS Sweden
Labyrintti	1-way Finland

Other Gatways can be added on request.

Contact your supplier if you are unable to find your HTTP local operator on the list.

HTTP Gateways/accounts are scalable. There is normally not any requirement for a minimum number of SMS messages per months.

It applies for Gateways that a Sender ID of your own choice can be forwarded along with the SMS.

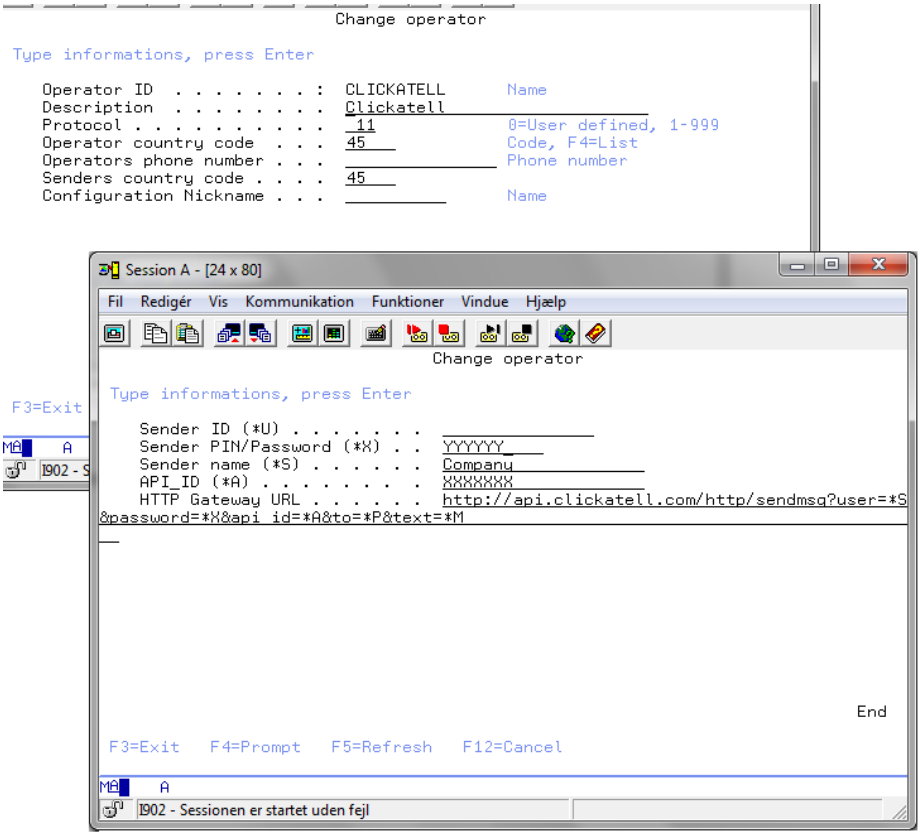
Activate a HTTP Gateway

Your must contact the operator(s) direct in order to get a SMS account.

The operator(s) will provide you with an ID and password for your account. You will need to enter this information when configuring the gateway.

Connect via Clickatell 1-way SMS.

Step 1.
Select option 12 “Work with teleoperators, phonelists and GSM lines”
Locate the Operator on the list.


Change operator
Type informations, press Enter
Operator ID . . . . . : CLICKATELL Name
Description . . . . . Clickatell
Protocol . . . . . 11 0=User defined, 1-999
Operator country code . . . 45 Code, F4=List
Operators phone number . . . Phone number
Senders country code 45
Configuration Nickname . . . Name
Session A - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Sender ID (*U) . . . . . YYYYYY
Sender PIN/Password (*X) . . XXXXXXX
Sender name (*S) . . . . . Company
API_ID (*A) XXXXXXX
HTTP Gateway URL . . . . . http://api.clickatell.com/http/sendmsg?user=*S&password=*X&api_id=*A&to=*P&text=*M
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
I902 - Sessionen er startet uden fejl

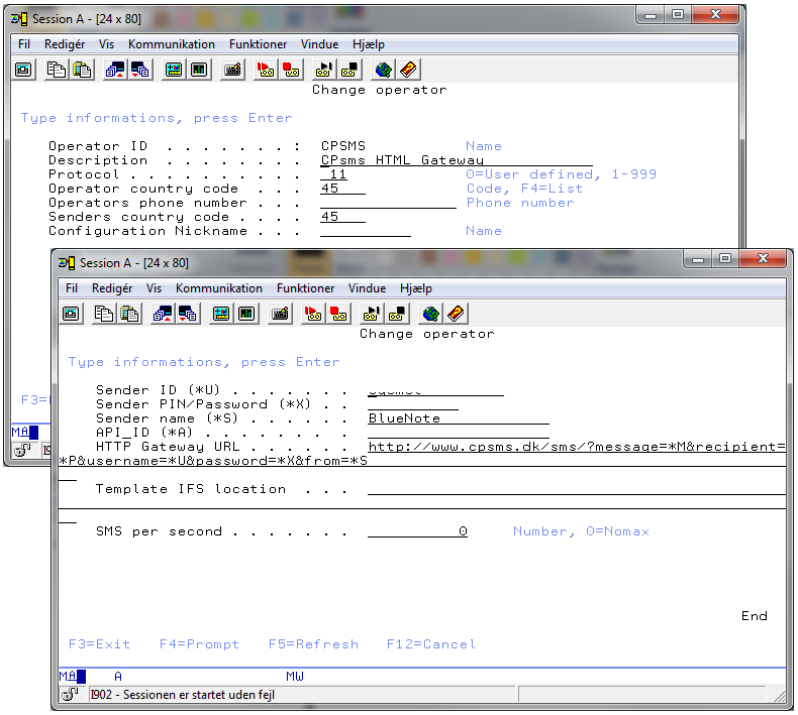
Protocol	11
Operator country code	From recipients location.
Operators phone number	Blank
Senders country code .	From iSeries location
Configuration Nickname	Blank
Sender ID (*U)	Blank
Sender PIN/Password	Password provided by operator
Sender name (*S) .	Sender name to be displayed on the phone. (Must be approved by Clickatell)
API_ID (*A)	ID provided by Clickatell
HTTP Gateway URL	

Note: Clickatell uses API_ID (*A) whereas the other operators uses Sender ID (*U).

Step 2.
Then add ‘Phone list’ to the HTTP Gateway. See chapter 2.7.1

Step 3.
Select option 15 “Work with system values”. Scroll to the last panel.
Make sure that Connection Priority List is set to “O” O=Operator

Step 1.
Select option 12 “Work with teleoperators, phonelists and GSM lines”
Locate CPSMS on the list.


Session A - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Operator ID . . . . . : CPSMS Name
Description . . . . . : CPsms HTML Gateway
Protocol . . . . . : 11 0=User defined, 1-999
Operator country code . . . : 45 Code, F4=List
Operators phone number . . . Phone number
Senders country code . . . . : 45
Configuration Nickname . . . Name
Session A - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Sender ID (*U) . . . . . .
Sender PIN/Password (*X) . .
Sender name (*S) . . . . . : BlueNote
API_ID (*A) . . . . . .
HTTP Gateway URL . . . . . : http://www.cpsms.dk/sms/?message=*M&recipient=*P&username=*U&password=*X&from=*S
Template IFS location . . .
SMS per second . . . . . 0 Number, 0=Nomax
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA A MW
1902 - Sessionen er startet uden fejl

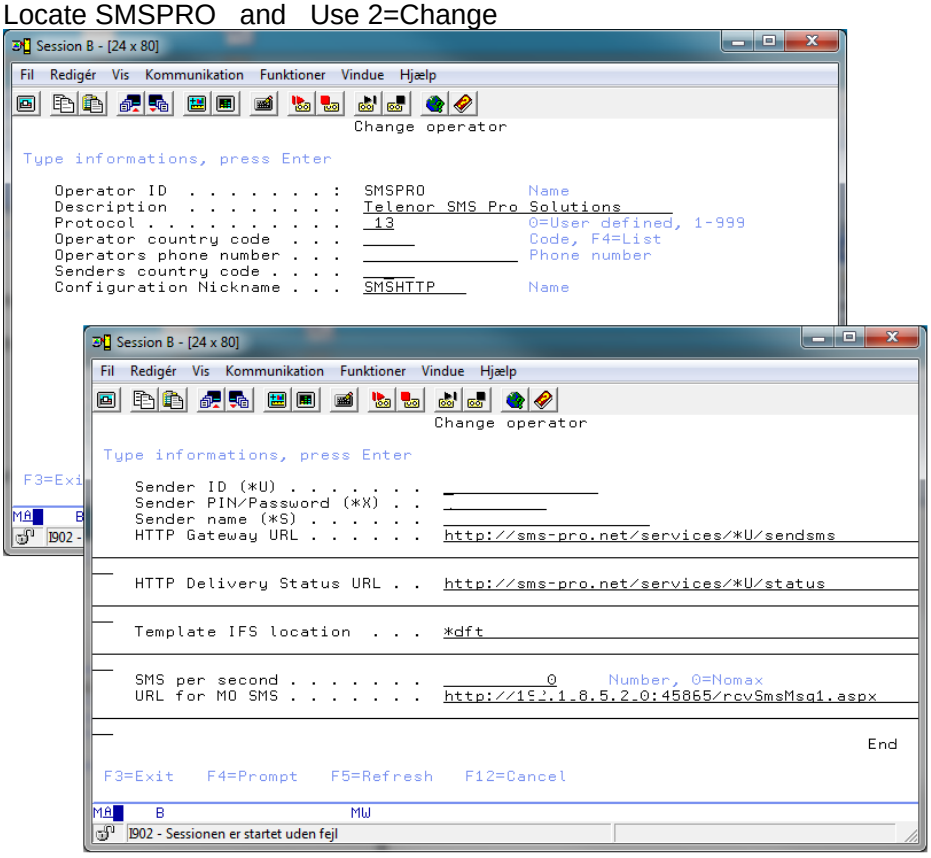
Protocol	11
Operator country code	From recipients location.
Operators phone number	- Blank
Senders country code .	From iSeries location
Configuration Nickname	- Blank
Sender ID (*U)	ID provided by operator
Sender PIN/Password	Password provided by operator
Sender name (*S) .	Sender name to be displayed on the phone. (or use GSM number on GSM terminal).
API_ID (*A)	- Blank
HTTP Gateway URL	- Do not change unless adviced to.
Template IFS	- Blank
SMS per second	- Do not change unless adviced to.

Step 2. Then add ‘Phone list’ to the HTTP Gateway. See chapter 2.7.1

Step 3. Select option 15 “Work with system values”. Scroll to the last panel.
Make sure that Connection Priority List is set to “O” O=Operator

Select option 12 "Work with operators"

Locate SMSPRO and Use 2=Change


Session B - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Operator ID . . . . . : SMSPRO Name
Description . . . . . Telenor SMS Pro Solutions
Protocol . . . . . 13 0=User defined, 1-999
Operator country code . . . Code, F4=List
Operators phone number . . . Phone number
Senders country code . . . .
Configuration Nickname . . . SMSHTTP Name
Session B - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change operator
Type informations, press Enter
Sender ID (*U) . . . . . .
Sender PIN/Password (*X) . .
Sender name (*S) . . . . . .
HTTP Gateway URL . . . . . http://sms-pro.net/services/*U/sendsms
HTTP Delivery Status URL . . http://sms-pro.net/services/*U/status
Template IFS location . . . *dft
SMS per second . . . . . 0 Number, 0=Nomax
URL for MO SMS . . . . . http://1?.?.1.8.5.2.0:45865/rcvSmsMsg1.aspx
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA B MW
I902 - Sessionen er startet uden fejl

Fill in the fields Operator and Senders country Code.
Scroll to 2nd panel

Fill in the values for

Sender ID (*U)
Sender PIN/Password (*X)
Sender name (*S)
Note. "Sender name" can have 3 values:

a. Plain text of your on choice (max 11 characters). The text is displayed as sender in the recipients mobile phone. These SMS can not be replied.

b. The phone number (of the SIM card) used in the GSM Terminal. Inbound SMS like replies will be sent to this number.

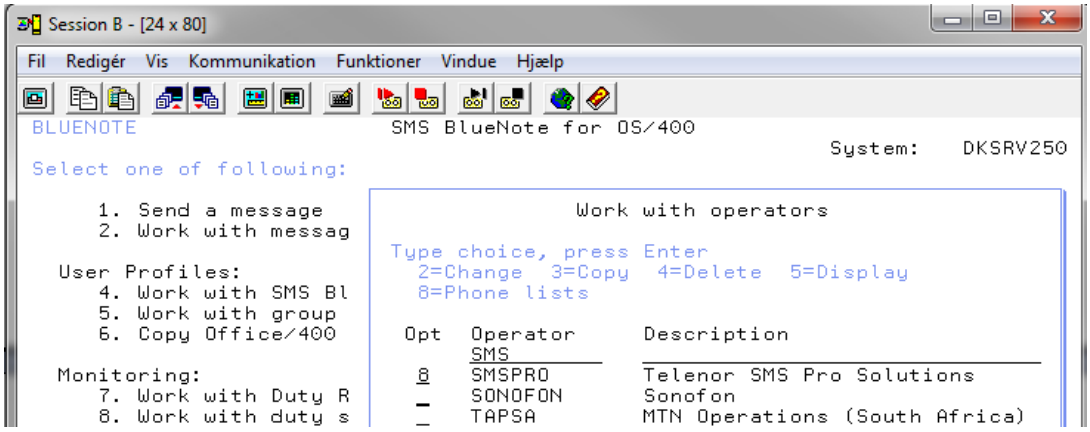
c. A phone number provided to you by Telenor. SMS sent to this number will be received by Telenor gateway and forward to BlueNote via TCP/IP.

URL for MO SMS http://as400_ip:45865/rcvSmsMsg1.aspx.

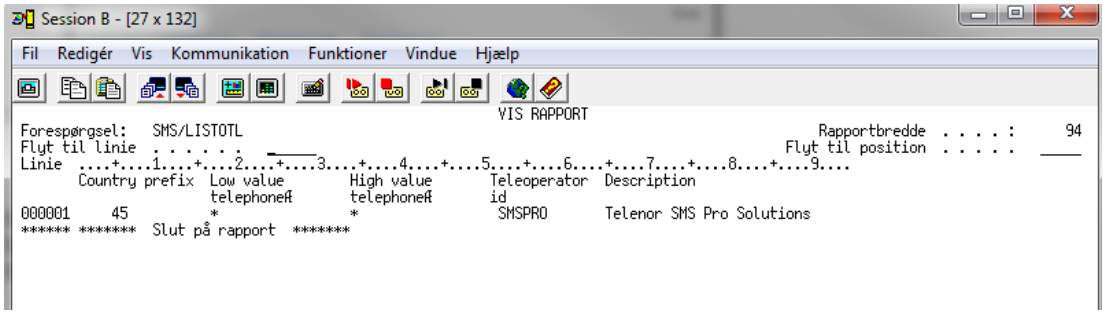
"as400_ip" equals the IP number on your System i™ .

Note: You will need to create a proxy address to make the ULR accessible for Telenor.

Create a phone list from * to * for SMSPRO

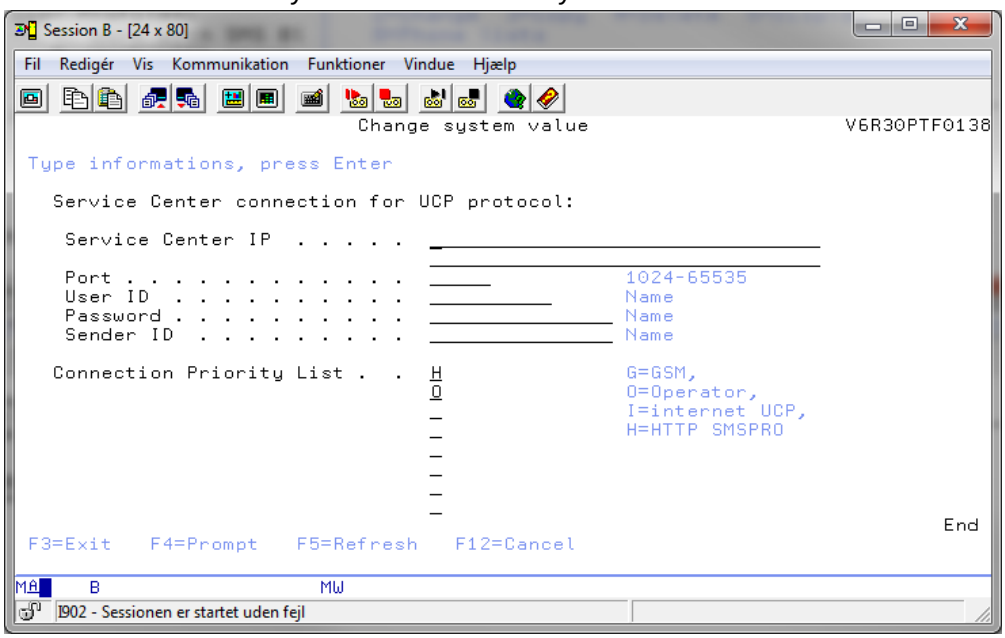


Then press F8=Phone list. The list must only contain SMSPRO.
Use '8=Phone' list to remove any "offending" phone list on other operators.


Session B - [27 x 132]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
VIS RAPPORT
Forespørgsel: SMS/LISTOTL
Rapportbredde . . . . : 94
Flyt til linie . . . . .
Flyt til position . . . . .
Linie ....+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....
Country prefix Low value telephone# High value telephone# Teleoperator id Description
000001 45 * * SMSPRO Telenor SMS Pro Solutions
****** ******* Slut på rapport *******

Select option 15. "Work with SMS BlueNote system values"

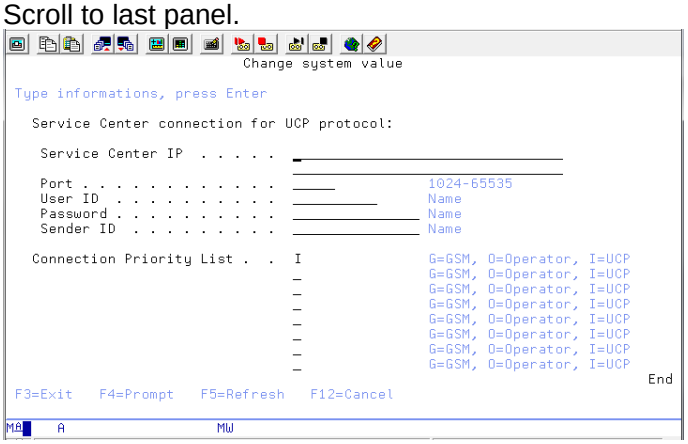
Scroll to the last panel.
Set "Connection Priority List" to H followed by O.


Session B - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Change system value
V6R30PTF0138
Type informations, press Enter
Service Center connection for UCP protocol:
Service Center IP . . . . .
Port 1024-65535
User ID . . . . . Name
Password . . . . . Name
Sender ID . . . . . Name
Connection Priority List . . H
O
G=GSM,
O=Operator,
I=internet UCP,
H=HTTP SMSPRO
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA B MW
I902 - Sessionen er startet uden fejl

You are now ready to use SMSPRO

Connect via UCP Gateway

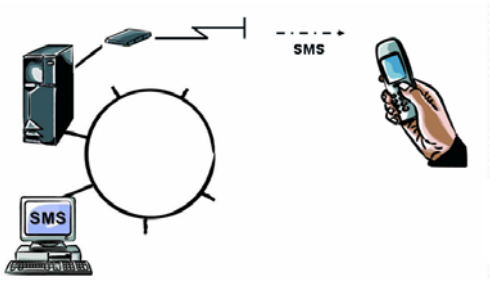
Select option 15 ‘Work with System values’
Scroll to last panel.


Change system value
Type informations, press Enter
Service Center connection for UCP protocol:
Service Center IP . . . . .
Port 1024-65535
User ID . . . . . Name
Password . . . . . Name
Sender ID . . . . . Name
Connection Priority List . . I G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
G=GSM, O=Operator, I=UCP
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA A MW

Service Center IP	Provided by the operator
Port	Provided by the operator
User ID	Provided by the operator
Password	Provided by the operator
Sender ID	Sender name displayed on the Mobile (9 charracters).
Connection Priority List ‘I’	I=Internet UCP

2.8. **Connect via dial up line and modem**.

Require one v.24 line and a modem - or the internal iSeries modem

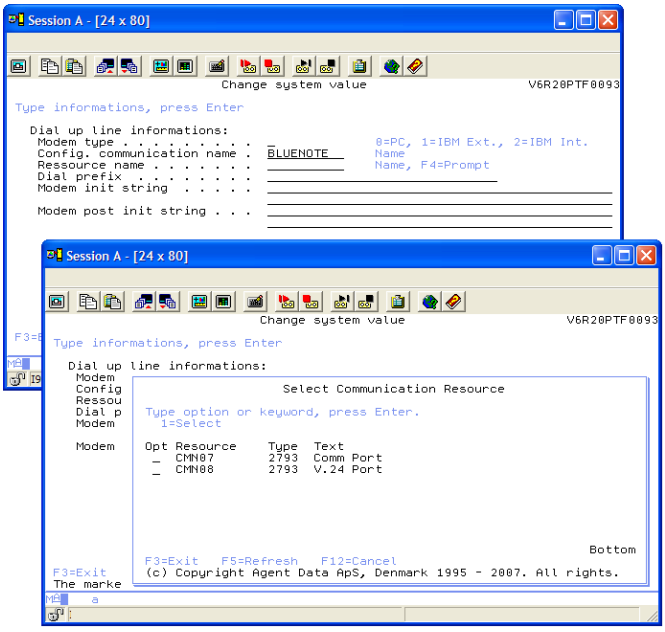


For plain dial up service to the GSM operator (SMSC).
When you install SMS BlueNote make sure you, ***use an asynchronous modem***. You will not be able to use IBM's standard modem 5858, since it can only communicate synchronic. You must also look out for IBM modem 7855-10. This modem will work both synchronic and asynchronic but it cannot switch automatically between the two settings. If you decide to use this modem you must set it in a permanent asynchronous mode.

In order to get an easy start, it will be a good idea to find a "simple PC-modem" (minimum 2400 baud) or the IBM modem and connect it to your iSeries through the thick, black IBM V.24 cable).

If you have an iSeries it is also possible to use the Internal IBM modem (e.g. 2793) where you plug in the phone line direct into your hardware.

Enter option 15 “Work with SMS System Values”


Session A - [24 x 80]
Change system value
V6R20PTF0093
Type informations, press Enter
Dial up line informations:
Modem type . . . . . .
Config. communication name . BLUENOTE
Ressource name . . . . . .
Dial prefix . . . . . .
Modem init string . . . . .
Modem post init string . . .
0=PC, 1=IBM Ext., 2=IBM Int.
Name
Name, F4=Prompt
Session A - [24 x 80]
Change system value
V6R20PTF0093
Type informations, press Enter
Dial up line informations:
Select Communication Resource
Type option or keyword, press Enter.
1=Select
Opt Resource Type Text
CMN07 2793 Comm Port
CMN08 2793 V.24 Port
Bottom
F3=Exit F5=Refresh F12=Cancel
(c) Copyright Agent Data ApS, Denmark 1995 - 2007. All rights.

"Dial up line informations"
This is internal iSeries modem or any async modem connected to the V.24 line.

Modem type *): 0=PC, 1=IBM External., 2=IBM Internal. Use 0=PC as default unless you are certain it is an IBM/Multitech standard.

Config.Communication name :

Generic term for the Line-, Controller-, and Device description it is recommended to use SMS.
Note! Line, controller and device will not be generated until you have sent the first message

Resource name: **Press F4** to define the name of the line, the modem is using.
If no lines are displayed then use use the command;
WRKHDWRSC *CMN to locate available lines.
A typical name for the line could be CMN08.

Dial Prefix): For a switchboard you will typically use 0W 0= “line out”, W=Wait.
Other standards are 9w or 9, or 9,,

Modem Init String :

If your modem needs a special Init string, you must write it here.
This is normally not the case but IBM 7852, 7855 10, modems will need: AT H0 E0 &c0 &e4 &s0 X4

The string for the **internal modem** is: AT H0 &F E0 &s0 &d3 X3

We recommend that you activate the "Inactivity Disconnection Timer" on your modem. Set it to one minute.

Modem:	Command:
Hayes	AT s30=6
Boca	-""-
Multitec	-""-
Lasat	-""-
Heusler	-""-
Acces	AT s39=6
Designer	-""-
US Roboctic	AT s19=1

If you use another modem than those mentioned - please look in the modems own manual.

Modem Post Init String *:
Normally blank. If your modem needs a special Init string for resetting the modem, you must type it here.

Press Enter and return to the main menu.

Select option 15 “Work with system values”. Scroll to the last panel.
Make sure that Connection Priority List is set to “D” D=Dial

Press Enter and return to the main menu.

Press 17 to start the susbsystem.

The system is now ready to send SMS.

NOTE – You must make sure, that the country code is set correctly in ”Network Attributes” before you use the internal modem.

Select a OS/400 command line and write: CHGNETA
Scroll to the last panel
The value in the country code must display the physical location of the iSeries.
If you read : ”Modem country ID . . . . . : *SAME”
then press F4=Prompt to select the right country "

SMS BlueNote works on a line description, with a line capacity of only 2400 baud. This is to ensure that the iSeries can communicate with all modems. Most modems can manage a far higher speed. You can optimize the speed, by changing the line description used by SMS BlueNote.

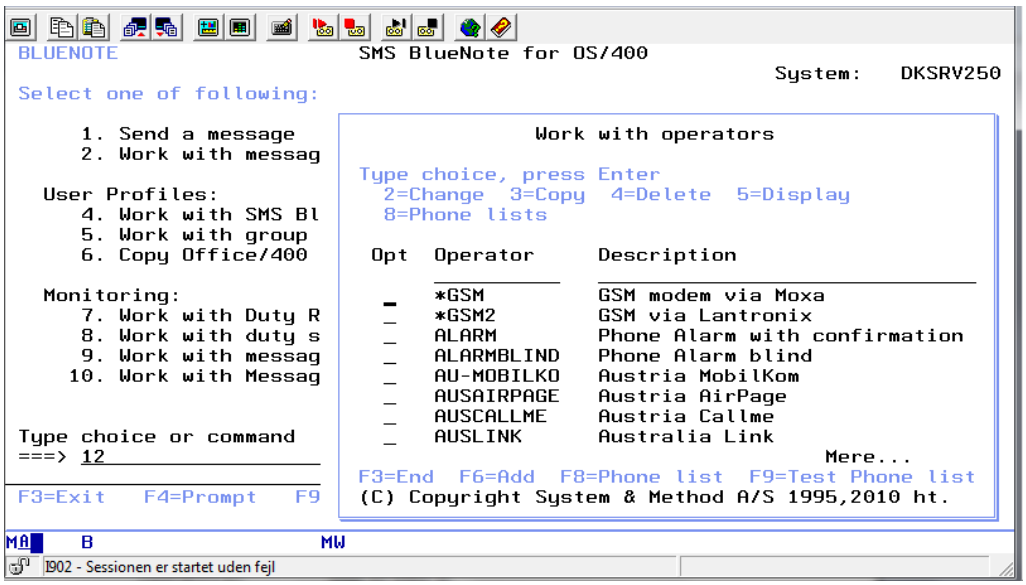
For instance type: CHGLINASC SMS Line speed(xxxxx).
on the command line in order to speed up the communication.

Line speed 19200 is default on most operators and it will only be on rare occasions, that you will have to change the modems own setup in order to work with SMS BlueNote.

We recommend, that you set **Modem Init String** as blank, when you work with the system setup. If you are unable to get in contact to your modem, try to choose an init string by typing F4 list.

2.8.1. Work with SMSC dial in operators.

SMSC stands for ‘Short Message Service Center’ and provides a SMS service for dial in modems.
BlueNote comes with a list of operators with SMSC support. They are listed in menu option 12. “Work with teleoperators, phonelists and GSM lines”.



The dial in phone number for the dial in SMSC service can have changed since the list was created. Check with your local operator and ask them for their number of their SMSC. A fast way is to just dial the number and listen for a modem tone.

Operators with SMSC will normally support a PC-software, which can handle the SMS or Memo service. The calling number we need for SMS BlueNote is the same used number used in this product. You will also need to know the type of protocol they are using.

So you will need to know:

a) *the calling number of their SMS center - Ask for the SMSC number used for dial up via PSTN*

b) *the type of SMS Protocol.* Is the type of SMS Protocol: UCP, SEMA 2000, TAP or other ?

If their protocol is one of the 3 mentioned - it is possible for you to implement the operator yourself by copying existing operators.

UCP Protocol = 1	copy TDKMOBIL and add the right calling number.
TAP Protocol =6	copy CELLNET and add the right calling number.
SEMA2000 Protocol =7	copy VODAFONE and add the right calling number.

You can to Create/Change basic information for Teleoperators.

Press F6 to Create a new operator or 2=Change to work with an existing Teleoperator.

Operators ID:	Max 10 letter id.
Description:	Full description of operator
Protocol:	0=User defined, 1 - 999 F4 shows a list. If 0 have been chosen, it is possible to program your own protocol and attach it to the system.

Only numeric messages: 0=No, 1=Yes, only used with Pager or ALARM.

Dialing method	Use "0" (Default value unless X.28)
Operator country code	The country code for the SMSC

Operators phone number: The phone number of the local SMS center.
Check operators phone number (For modem dial in).

Sender's country code:	Your country code (the physical location of the iSeries)
Senders ID:	Som proctocol and HTTP provider need an Sender ID. The ID is delivered by the operator.
Senders PIN code:	0000-9999 is only typed if the operator demands it.
Sender Name	Display e.g your company name in the header og the SMS.
API_ID	Used by e.g Clickatell (HTTP operator)
HTTP Gateway URL	The URL used by the HTTP operator.

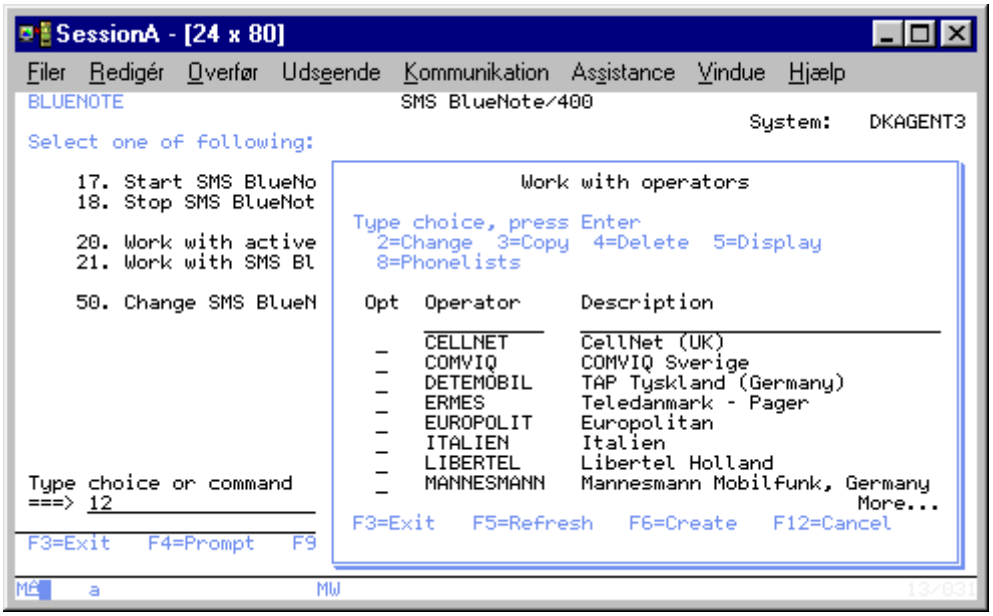
********Scroll the panel **********

User protocol program:	Here you determine the user defined program name as a library.
Library name:	Name, *LIBL
Pre-program name:	Right before the communication to the modem is started, it is possible to run a program, written by your-self. Perhaps the modem is used for something else, why you would be able to control this traffic.
Library name:	Name, *LIBL
Post-program name:	When SMS has finished sending, your own written program can be called, and be used to re-establish functions, that have been shut down by the pre-program.
Library name:	Name, *LIBL

Max line speed:	(Most will accept 19200 baud)	
Number of data bits	7 or 8	(Get info from your operator.)
Number of stop bits	1 or 2	(As above)
Parity	*NONE, *ODD, *EVEN	(As above)
PAD Destination id	Normally blank	

2.8.2. SMSC in operators who use PINCODES.

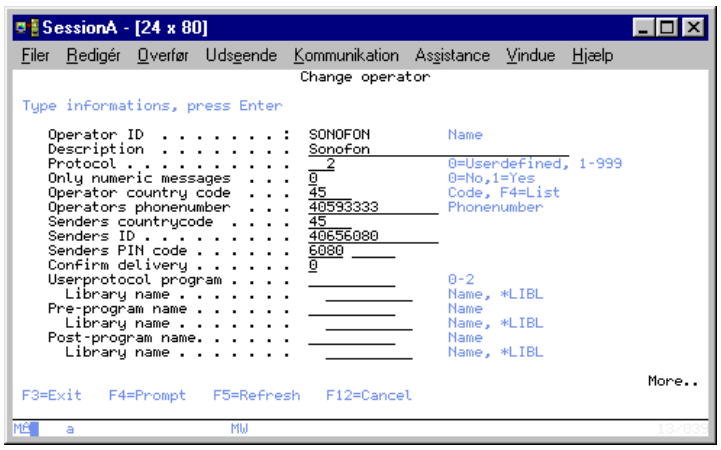
Some Teleoperators SMSC requires that you subscribe to their service in order to use the SMSC facility. You can check this by calling your local operator. In order to be admitted to the SMS system, some operators require that you enter a PINCODE in SMS BlueNote. In order to type the PINCODE, choose number 12 in the main menu for work with operator.



In "Work With Operators" type 2=Change by the operator. A screen will appear, where you type the PIN CODE. See also chapter 3.7.1 "Work With Operators".

Note !!! It is **not** the PIN-code you use to open your mobile phone. You must use the PUK-code you got from your operator (it is also printed on the back of your SIM card). The PIN-code is the 4 last ciphers of the PUK-code. If the PUK-code is 1234567890A, the PIN-code will be 7890. If you have any doubts regarding your code, please call the Teleoperators customer service.

And note !!! A SENDER ID is your GSM phone number, without country code.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Change operator
Type informations, press Enter
Operator ID . . . . . : SONOFON Name
Description . . . . . Sonofon
Protocol . . . . . 2 0=Userdefined, 1-999
Only numeric messages . . . 0 0=No,1=Yes
Operator country code . . . 45 Code, F4=List
Operators phonenumber . . . 40593333 Phonenumber
Senders countrycode 45
Senders ID 40656080
Senders PIN code 6080
Confirm delivery 0
Userprotocol program 0-2
Library name . . . . . Name, *LIBL
Pre-program name . . . . . Name
Library name . . . . . Name, *LIBL
Post-program name. . . . . Name
Library name . . . . . Name, *LIBL
More..
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MW

2.9. Work with Phone lists.

When you send a SMS message from option "1. Send a message" or using the SNDSMS command you can either choose to send to a predefined recipient - from the SMS BlueNote phone book - or you can key in the number direct.

A Phone list is needed when; a number is keyed in directly when using option "1. Send a message" or when using the SNDSMS command. This **always** applies when sending SMS using:

- Multiple GSM lines.
- Gateways HTTP operator
- Dial in modem

Phone list can be used in differet combinations:

Generic. BlueNote will send SMS using the first vacant GSM line if the number series * to * is used on all GSM lines.

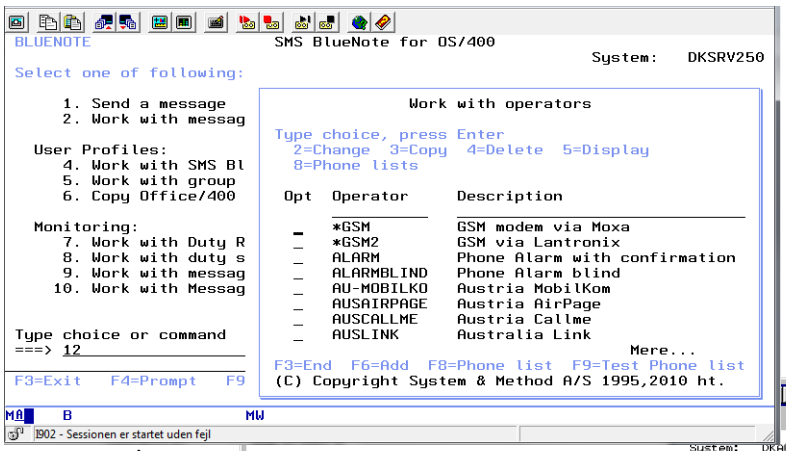
Detailed. Say you have two GSM lines. You can reserve one line for sending SMS and one for receiving SMS. Use * to * on the ”sending linie” only.

You can use the Phone list to reserve reserve a GSM modem for certain users.

Combination of Gateway and and GSM line.
Example: The Gateway is reserved for SMS communication with external customers - while the GSM line is reserved for the IT personell who uses it for monitoring.

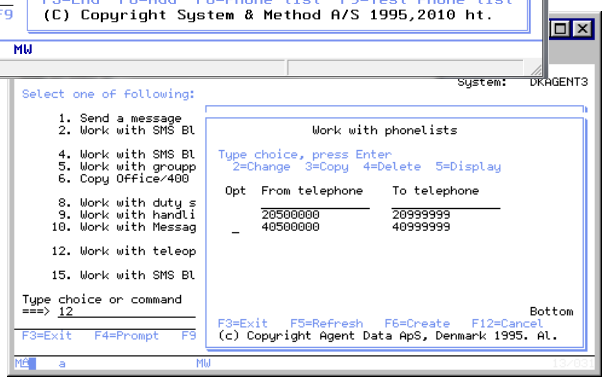
Dial in modem. Some SMSC operators will only service their own customers.

Select Option 12 “Work with teleoperators, phone lists and GSM lines”
Use the panel **Work With Operators.**

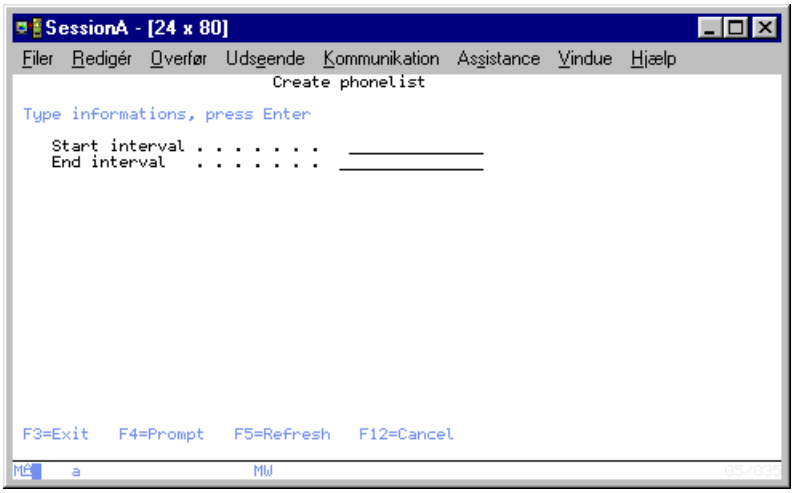


Select the operator and type "8=Phone lists" in front of the operator in question.

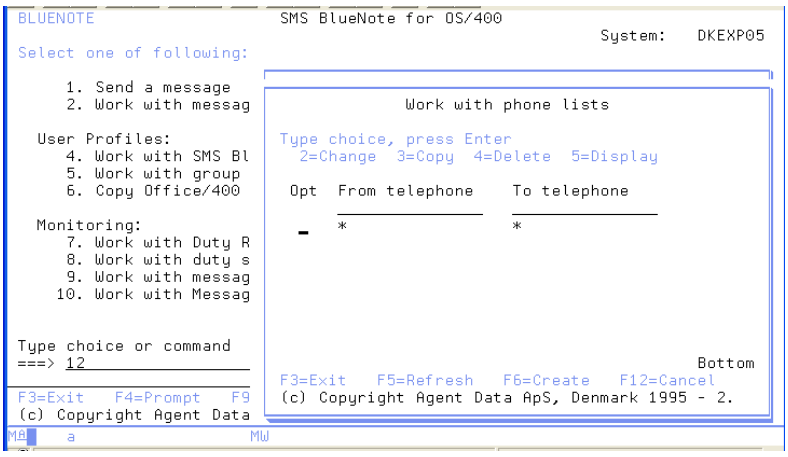
You can add the intervals, used by the different operators or you can add single numbers.



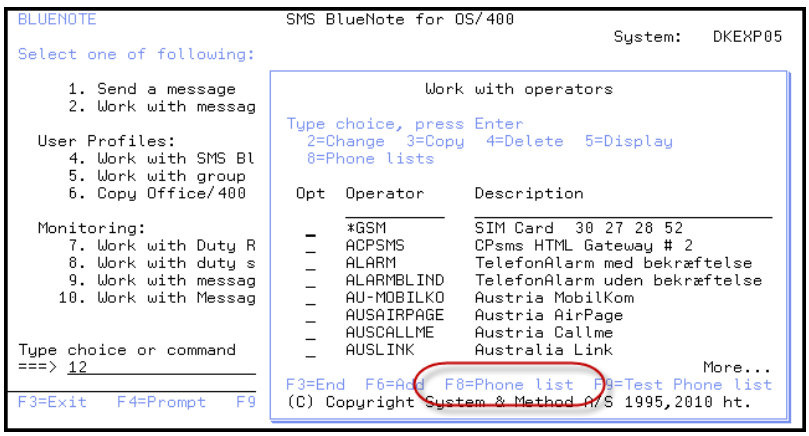
You can also attach new number series to the operator.
If this distribution of phone numbers is changed, you have the possibility to edit or create new phone list´.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Create phonelist
Type informations, press Enter
Start interval . . . . . .
End interval . . . . . .
F3=Exit F4=Prompt F5=Refresh F12=Cancel

It is possible to use generic selection by use of an asterix *



The generic selection will cause all numbers to be routed via this operator.



The F8 Key will display the Phone List that has been activated.

Chapter 3. Superior system structure.

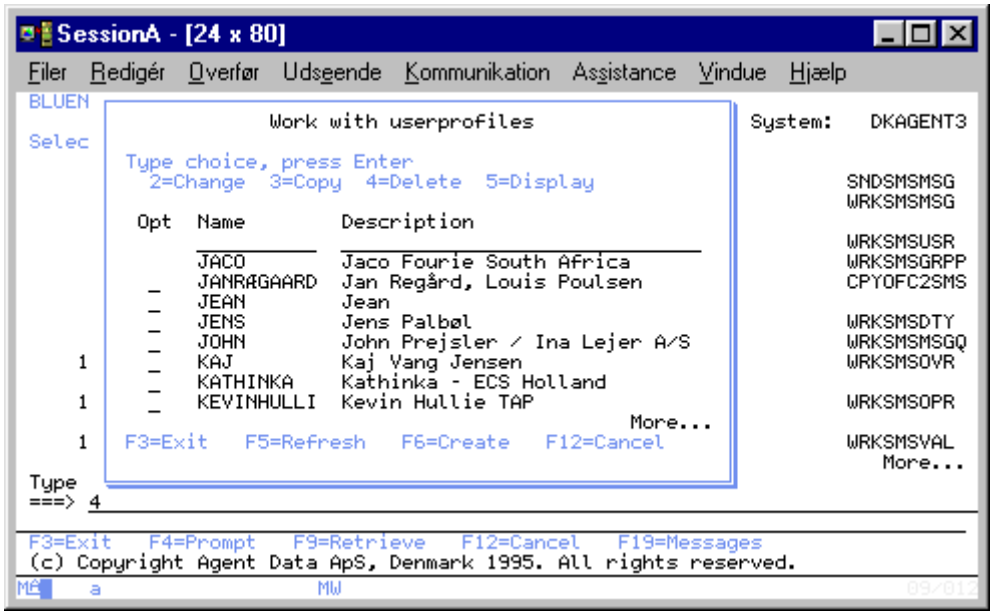
When you are sending a message from SMS BlueNote, it is just like an ordinary telephone. You either dial a number directly, or you can speed dial a number already precoded in-to the telephone.

You can send a message by typing the recipients GSM phone number direct. But it is more practical - in the daily work - if you create permanent users/recipients in the system.

SMS BlueNote creates its own address-database, with user and phone number. This database can, by choice, be organized with user- and group profiles for sale, administration and so forth.
You can at all-times create a foreign GSM recipient in SMS BlueNote, as there are two methods that you can use to send. You can a) either send the SMS message via your local operator and use roaming or you can b) send direct via a foreign operators connected to SMS BlueNote.

3.1. Work with user profiles.

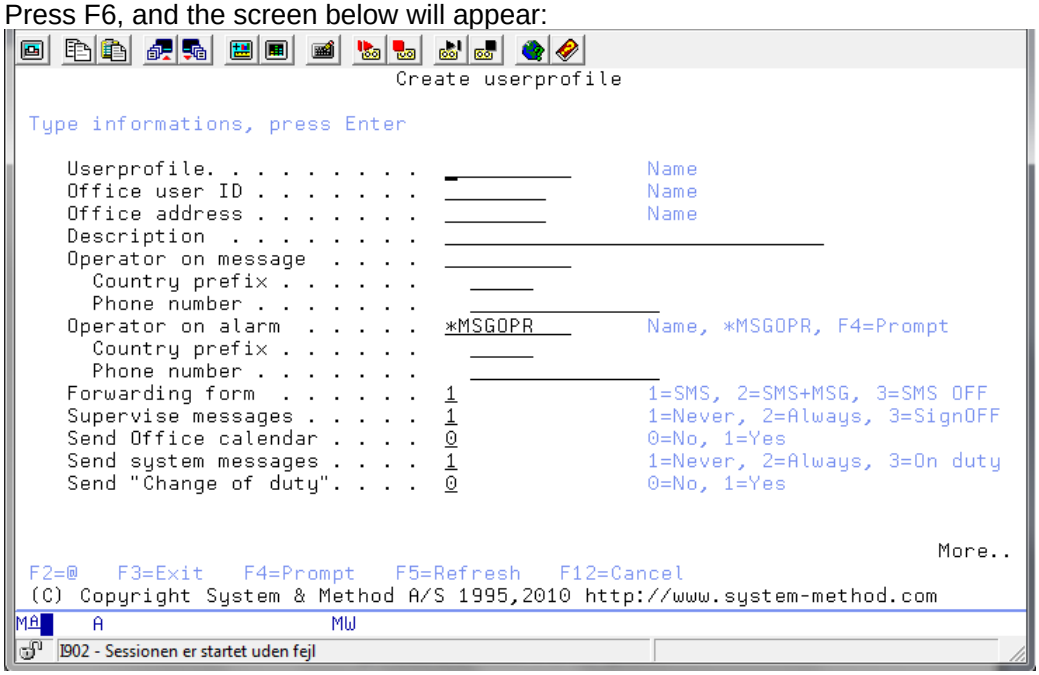
When the programs have been installed, the creation of users can begin. Type 4 in the main menu to work with user profiles. The screen below appears:



You can now create and Change user information.

3.2. Create a user/recipient.

Press F6, and the screen below will appear:


Create userprofile
Type informations, press Enter
Userprofile. . . . . Name
Office user ID . . . . . Name
Office address . . . . . Name
Description . . . . . .
Operator on message . . . .
Country prefix . . . . . .
Phone number . . . . . .
Operator on alarm . . . . . *MSGOPR Name, *MSGOPR, F4=Prompt
Country prefix . . . . . .
Phone number . . . . . .
Forwarding form . . . . . 1 1=SMS, 2=SMS+MSG, 3=SMS OFF
Supervise messages . . . . . 1 1=Never, 2=Always, 3=SignOFF
Send Office calendar . . . . 0 0=No, 1=Yes
Send system messages . . . . 1 1=Never, 2=Always, 3=On duty
Send "Change of duty". . . . 0 0=No, 1=Yes
More..
F2=@ F3=Exit F4=Prompt F5=Refresh F12=Cancel
(C) Copyright System & Method A/S 1995,2010 http://www.system-method.com
MA A MW
I902 - Sessionen er startet uden fejl

User profile: The User ID of the recipient.

Office user ID and address: Is only typed if you have OV/400 in the system.

Description: The full name of the recipients.

Operator on message: Teleoperator name. F4 displays a list. Find your operator. Note: The selected operator will be used a default and will overrule a Phone list . (See 2.7)

Country prefix: Country code for the teleoperator.

Phone number: The phone number of the recipients GSM phone.

Operator on alarm: *MSGOPR will defulat on “Operator on message”.

Country prefix: Country code for alarm operator.

Phone number: Phone number on alarm phone (system operators only).

Forwarding form: (See chapter 3.2.1)
Choose 1 - 3. F4 displays a list.
1= Message is only being sent as an SMS text.
2= Message is being sent both as an SMS text and as an OV/400 or mail message.
3= Message is only being sent as an SMS text, if the user has logged off the system. Otherwise the message is being sent as an OV/400 or mail message.

Supervise messages: Choose 0=No or 1=Yes. The user chooses whether the mail system e.g. OV/400 shall be supervised.

Supervise Office calendar: Calendar in OV/400 can be supervised.

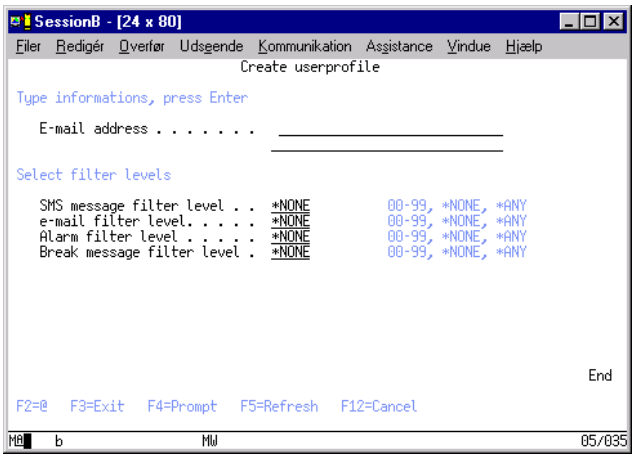
NOTE - The following values must only be filled for system operators or other persons involved in the actual supervision of the iSeries. Read chapter 5 carefully before you change the default values.

Send system messages: 1=Never Default for persons not involved in the running of the iSeries.

2= Always. Are normally used if there only are one person who have charge of the company's iSeries. It is also possible to monitor messages above a certain severity level even though you not a part of the duty plan.

3=On duty. You will only get messages when you are active on the duty plan.

Send change duty: Would you like to receive a message stating that your duty hours will begin/end.


SessionB - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Create userprofile
Type informations, press Enter
E-mail address . . . . . .
Select filter levels
SMS message filter level . . *NONE 00-99, *NONE, *ANY
e-mail filter level. . . . . *NONE 00-99, *NONE, *ANY
Alarm filter level . . . . . *NONE 00-99, *NONE, *ANY
Break message filter level . *NONE 00-99, *NONE, *ANY
End
F2=@ F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA b MW 05/035

E-mail Address: System operators can receive emails with system messages.

Inbound SMS can be sent to the user profile and forwared as e-mail.

The standard rules for severity level are used in SMS BlueNote 00 is lowest, 99 the highest. *NONE omits all. *ANY includes all.

Message filter level: Messages above this severity level will be monitored and sent as SMS.

e-mail filter level: Messages above this severity level will be monitored and sent as e-mail.

Alarm filter level: Messages above this severity level will be generate an alarm. It can be sent as SMS to a pager, but it can also raise a tone alarm on a phone. It will simply call the phone. You do not need to be an active part of the duty plan to get an alarm.

Break message level: This is an alternate message function. Messages with a severity level above this level will appear as a break message on your screen. You can not answer this message and will have to use the normal way e.g. DSPMSG QSYSOPR.

3.2.1. Method of dispatch

SMS BlueNote has a built-in facility in order to integrate the message with your mail system on AS/400, in Office for instance. There is often no reason to send a message to a mobile phone, if the recipient is working at an AS/400 workstation. This is why you can choose between the options:

1= The message is only sent as SMS text.
2= The message is sent, both as a SMS text, and through the mail system.
3= The message is only sent as SMS text, if the user is logged off the system. Otherwise the system is sent through the mail system, and the message is filed as SMS in the log.

3.2.2. Supervise other message systems.

When you are logged off the system, you have the option to let SMS BlueNote supervise your messages in Office or other mail systems on AS/400. If you wish, you can choose between these two options:

All your messages are to be sent to your mobile phone automatically.

All your messages are to be sent to your mobile phone automatically. But only if you signed off your monitor.

Supervise mail. Choose 0 - 1:

0= No.
1= Yes.

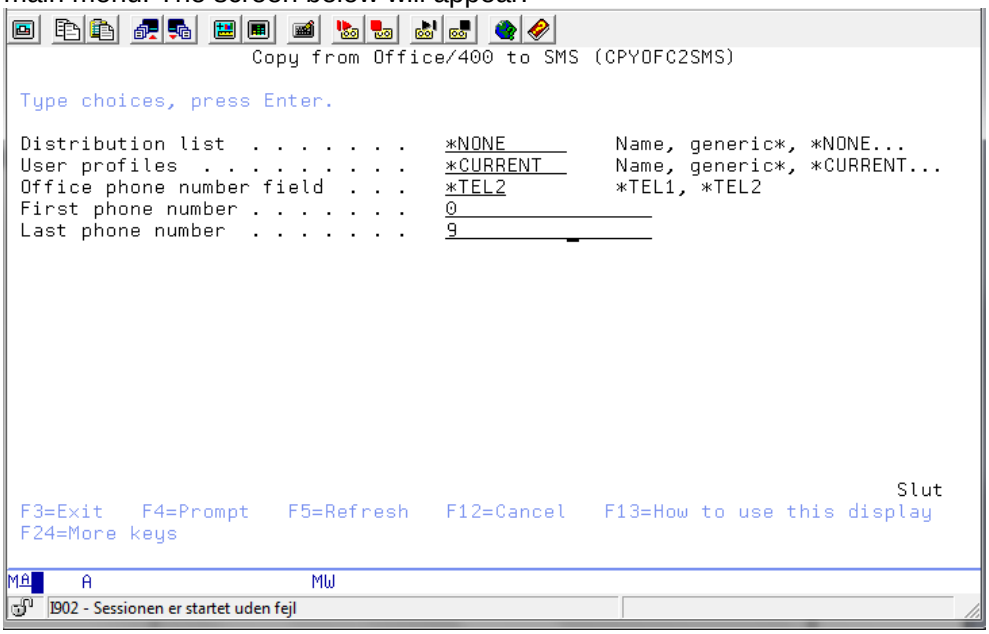
.

3.3. Create a user/receiver from OV/400.

Note:

Support for OV/400 ends with OS/400 V5R1

In order to copy user profiles from OV/400, choose number 6 (Copy Office) from the main menu. The screen below will appear.


Copy from Office/400 to SMS (CPYOFC2SMS)
Type choices, press Enter.
Distribution list . . . . . *NONE Name, generic*, *NONE...
User profiles . . . . . *CURRENT Name, generic*, *CURRENT...
Office phone number field . . . *TEL2 *TEL1, *TEL2
First phone number 0
Last phone number 9
Slut
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
MA A MW
I902 - Sessionen er startet uden fejl

Enter the following information:

Distribution lists	Name, *None, generic*, *ALL	
User profiles	Name, *Current, generic*...	See example below

Office phone number field	*TEL1, *TEL2
First phone number	0
Last phone number	9

3.4. General about functions in user/recipient profiles.

Note !!! You cannot control on **"Forwarding form"** and monitor "**Supervise messages**" at the same time. You will have to take a principal decision to - either to send your messages via SMS BlueNote, or to send messages the OS400 messaging systems .

See chapter 3.5 for how to active the security system. An active security system will enable the user to maintain his own user profile only.

3.4.1. Forwarding form.

You may regard SMS BlueNote as a communication tool for written messages, and the messages do not necessarily need to be sent to GSM mobile phones. In larger organizations, it is not always possible to know, if the person, who needs to receive an important message, is at his/her desk. It might be difficult to determine whether the message should be sent as an SMS message, or to use the ordinary mail system on the AS/400. That's why we have chosen to integrate SMS BlueNote for AS/400's own message system.

You have the possibility to choose the forwarding form:

0= As user profile.

1= The message is only being sent as an SMS text.

2= The message is being sent both as an SMS text and as a mail message.

3= The message is only being sent as an SMS text, if the user has logged off the system. Otherwise, the message will be sent as a mail message.

Note - If you are sending to a known recipient with a user profile in BlueNote, a conflict can arise, if both, the sender and the recipient, wants to control the forwarding form.
You (the system operator) must take a principal decision if your company will use the forwarding form of a) The sender or b) The recipient's user profile.
If the "Forwarding form" in the recipients user profile is set to 2 or 3 the senders Forwarding form must ALLWAYS be set to "0= As user profile".

Note !!! If you use a mail system like OV/400 - you cannot control on "Forwarding form" and monitor "Supervise messages" at the same time. You will have to take a principal decision to - either to send your messages via SMS BlueNote, or to send ALL messages via the mail system e.g. OV/400.

3.4.2. Supervise messages.

SMS BlueNote can be integrated with other message systems. Messages from OS/400 can automatically be sent to a GSM mobile phone. This is practical, if the user frequently leaves his/her desk.

The contact is controlled by the user, with the parameters 0= No. 1= Yes.
If you have chosen 1=Yes *all messages* from e.g. OS/400 will be sent to the recipients GSM phone.

3.4.3. Supervise Office notes and messages. (OV/400 is discontinued with V5R1)

NOTE !!! In this paragraph the terms **"Notes** and **Messages"** are the terms used in OV/400.
When you are sending Notes or Messages - OV/400 can as you know be preset so - the recipient will be advised on his terminal:

a) of *all* inbound notes and messages.

b) of *all* inbound messages - but only of Notes which is defined as "Important" or as "High priority" by the sender.

If you are using OV/400, it is possible for you, to let SMS BlueNote use the same functions to determine - if a Note must be retransmitted to a GMS phone.

If you have chosen to supervise OV/400, messages from OV/400 are automatically sent to a GSM mobile phone by the same criteria as mentioned before:

a) *all* notes and messages will be transmitted to the GSM phone.

b) *all* inbound messages - but only Notes which is defined as "Important" or as "High priority" by the sender - will be transmitted to the GSM phone.

This is supervised from OV/400.

If you are sending Notes and Messages direct from OV/400, the function "Notify mail" must be set to "1= Mail types" or "2=All mail".

If you select "2= All mail" - *all* notes and messages will be transmitted to the GSM phone.

3.4.4. Supervise Office Calendar. (OV/400 is discontinued with V5R1)

SMS BlueNote also gives you the possibility to supervise your calendar in OV/400.

If 1=Yes is chosen, the calendar will be sent to your GSM mobile phone daily - on the hour of the day you prefer, for instance 7.30 a.m. The time is set by the system operator in the field "Daily Operations" in Work With System information.

The time is - as a default - set to precisely 00.00.00 midnight.

Note - Support for OV/400 ends with V5R1

3.4.5. Send messages to foreign GSM users.

SMS messages are covered by roaming agreements between the GSM Teleoperators. This means that you can send SMS to foreign recipients as long as the SIM card in the GSM Terminal is covered by the GMS roaming system.

You can also use Gateways to send SMS to foreign GSM subscribers. And there are two methods depending on the gateway.

Use the SNDSMSMSG command and enclose county code and phone numer in the command.

Some Gateways will only accept local numbers. So you will in option 12 “Work with operators” create one gateway for each country. Each gateway must hold the correct country prefix.

3.4.6. Alarm phone.

The phone number for alarm phone is normally only for system operators. When a SMS message appears on a GSM mobile phone, a low "bib" is normally heard. This will normally not be loud enough to attract attention, if you are e.g. at sleep.

If serious messages regarding power failure, disk-crash, among other things occurs, the system will - if configured to do so - call a telephone,. You will hear a three-toned alarm, and it should be enough to attract the attention to the SMS message on your GSM mobile phone.

You can select two types of Alarm operators:

ALARM. BlueNote expects the phone to be answered. The system will react on sound followed by silence. It will take approx. 5 seconds from the phone is answered to the alarm tone is heard. The alarm in SMS BlueNote will keep on dialing/calling until the phone is answered and the receiver lifted.

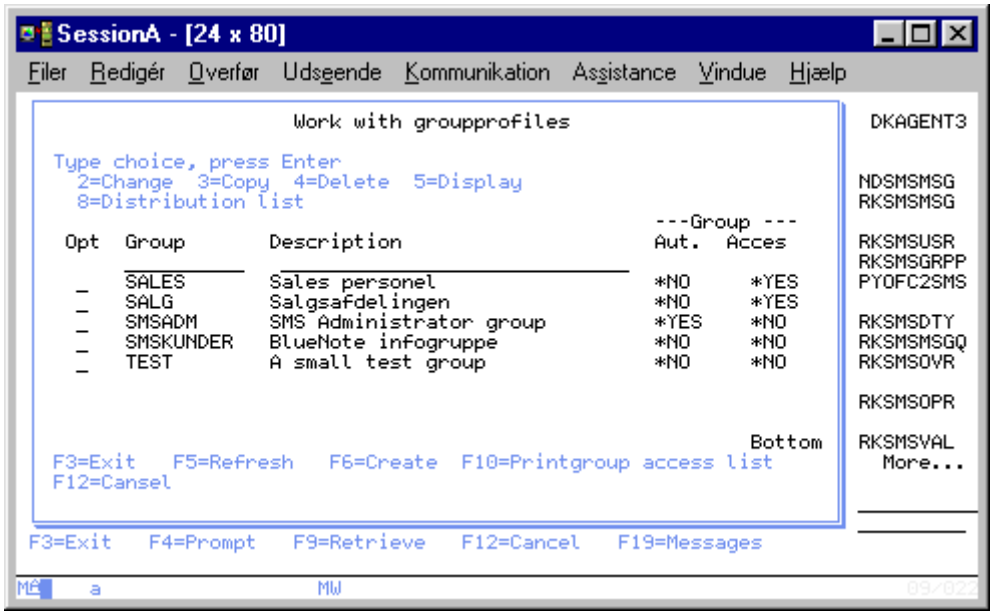
ALARMBLIND. The system will NOT await the phone to be answered. The alarm is activated for 90 seconds only, and you will hear the alarm tone, the very moment the receiver is lifted of the phone. The alarm will only make a redial - if the line is busy.

To decide on the one type or the other - must be a matter of personal preference.

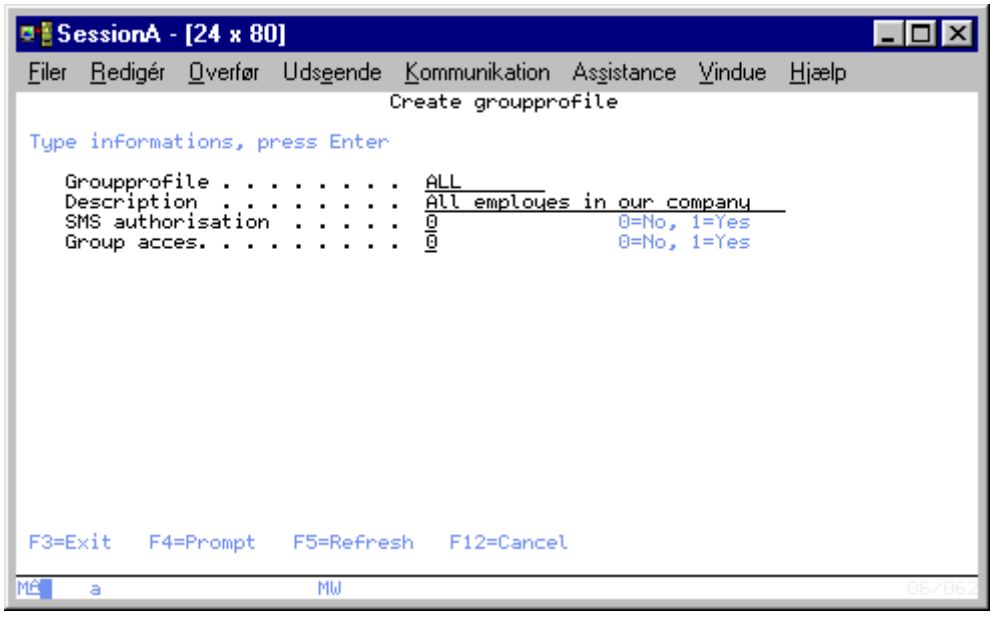
NOTE:
Alarms sent via the GSM terminal will just ring the phone. It is adviced to add the number in the address list in your phone.

3.5. Group profiles.

In SMS BlueNote you have the possibility to send messages to individuals and to groups. Type 5 on the main menu, to see the following screen "Work With Group profiles".



Press F6 to create a group and type 2 =Change a group. In the example below the group ALL is being worked on.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Create groupprofile
Type informations, press Enter
Groupprofile . . . . . ALL
Description . . . . . All employes in our company
SMS authorisation . . . . . 0 0=No, 1=Yes
Group acces. . . . . 0 0=No, 1=Yes
F3=Exit F4=Prompt F5=Refresh F12=Cancel

A user can be setup in several groups at the same time. For instance you can be setup in the group ALL, and at the same time in the group SALES.

"SMS authorization": Here you can determine who will have authorization to edit in SMS BlueNote's setup and user profiles. For instance you can create a special group of SMS administrators. They have also access to read all SMS messages sent from the system and they have access to the option "Print group access list".

Group access: 1=Yes, means that members of this group will have access read all messages sent within this group. You can see them in point 2 on the main menu "Work with messages"

If you are a member of several groups with "Group access " - you will also get access to read messages sent between the groups. But you will only get access to read the messages if both the names are on your own positive list.

Example: Imagine a company, which operates with 3 groups; Sales, Technicians and All.

Sales Group access: Yes	Technicians Group access: Yes	All Group access: No
Jensen	Smith	Jensen
Hansen	Hansen	Hansen
Olsen	Clinton	Olsen
		Smith
		Clinton
		McDonald

Jensen, who is a member of the group "Sales" can, in the log, see his own messages - and the messages sent internal in the group - and them only. Jensen cannot see messages, sent from e.g. Hansen to a third party.

Hansen is a member of both groups "Sales" and "Technicians". There is group access in both groups and Hansen have got the members from both groups on his positive list. He can thus read the messages sent between the group members. Hansen can read messages sent between Olsen and Clinton .

In the group "All" are "Group access" set to "No". This means that McDonald, who is not member of other groups only can see his own messages - and no others.

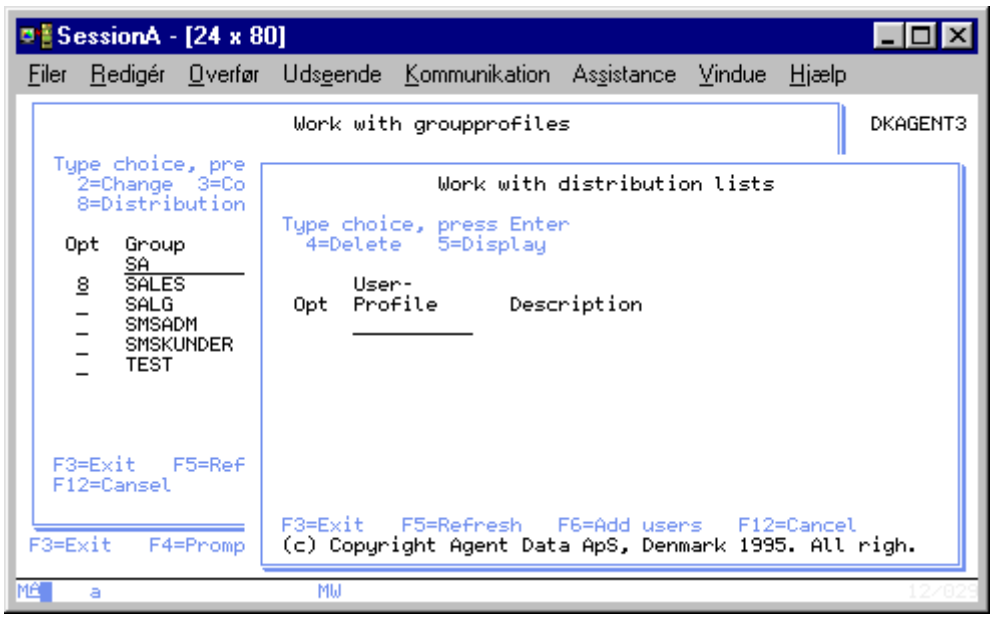
Hansen is also a member of this group, but because "Group access " is set to "No", - Hansen is unable to see the log of the messages, sent between Clinton and McDonald.

****

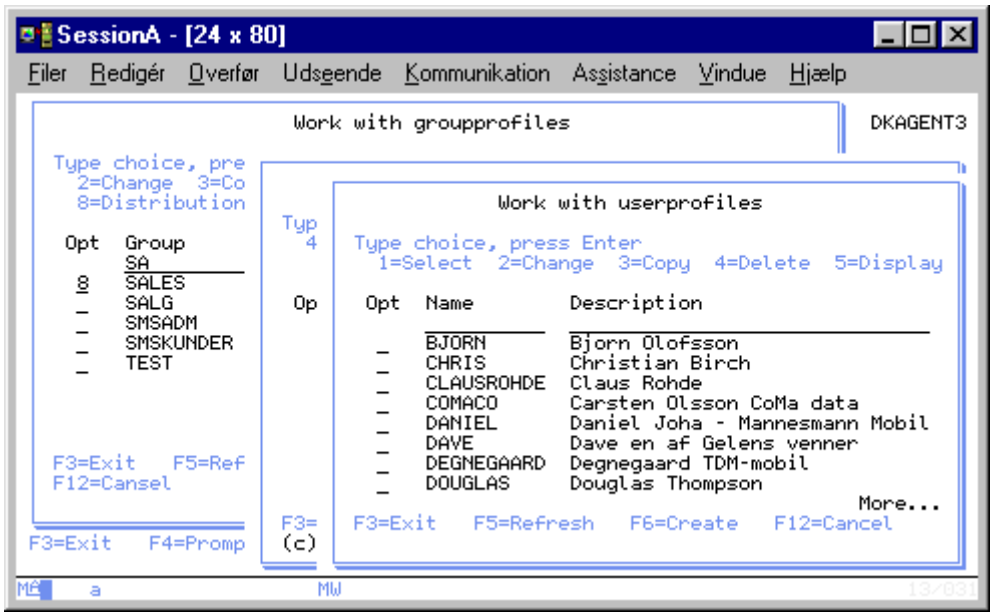
Print group access list. If you have got SMS Administrator status this enables you to print a complete list of the relations between the group members. Use F10= Print group access list.

3.6. Distribution lists.

Distribution lists control all relations regarding user/group. To access this area, type 8=Distribution list from **Work With Group profiles**.
You will now see the screen; **Work With Distribution lists** as shown below. This is where you attach the different users to the group.



Press F6 to create users in a group. You will then receive a list of all the users in the SMS system. The users are listed on the screen; **Work with user profiles**.



Choose one or several users by typing 1=Choice, on the line in front of the user. Now the user/users are attached to the group via the distribution list.

Chapter 4. Send messages from SMS BlueNote.

This chapter can be distributed as a manual for those, who only use **SMS BlueNote's** message functions.

Basic functions in SMS BlueNote:

Messages can be sent to a specific person, or groups.

The time of sending can be controlled exactly with time and date (calendar function).

Messages in Office or other mail systems are supervised, and can be transmitted to a GSM mobile phone.

SMS BlueNote's job log gives you a complete status of your sent messages.

You can maintain your own user profile.

4.1. SMS in general.

SMS, stands for Short Message Service, gives you the possibility to send text messages on up to 160 characters, to GSM mobile phones. If the recipient has turned off his mobile phone, the message will "hang and wait" by the teleoperator in up to 72 hours, whereupon it will be deleted.

A standard GSM mobile phone will hold minimum from 10 to 15 messages, regardless as to the message contains 16 or 160 characters. If there are more messages waiting, they will "come rolling in like pearls on a string", as you delete the old messages from the mobile phones memory.

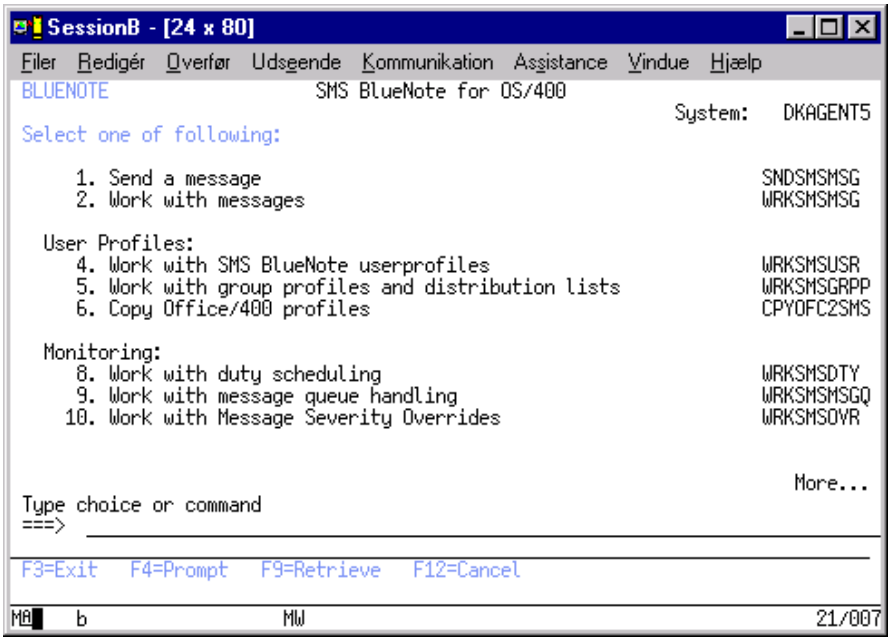
A standard SMS is 160 characters. The SMS BlueNote system can handle long messages totalling 1350 characters. Long messages are sent as concatenated SMS. That means that a message on e.g. 300 characters is sent and charged as two SMS.

The message will be displayed as one message in all mobile phones - or SMS systems - that supports concatenated SMS.

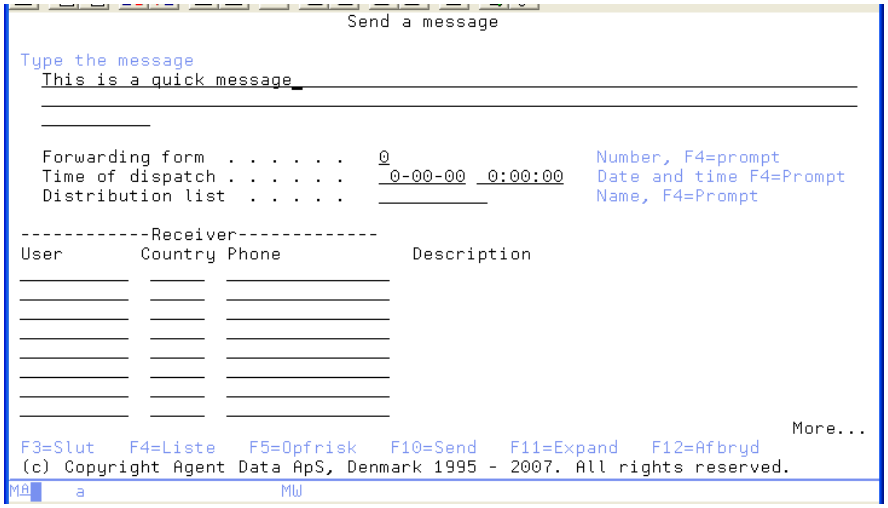
Early GSM phones, will display the message in two separate SMS

4.2. Send a message.

In order to send a message, you write **GO BLUENOTE** on a command line. That gives you the main menu from SMS BlueNote as shown below.


SessionB - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote for OS/400
System: DKAGENT5
Select one of following:
1. Send a message SNDSMSMSG
2. Work with messages WRKSMSMSG
User Profiles:
4. Work with SMS BlueNote userprofiles WRKSMSUSR
5. Work with group profiles and distribution lists WRKSMSGRPP
6. Copy Office/400 profiles CPYOFC2SMS
Monitoring:
8. Work with duty scheduling WRKSMSDTY
9. Work with message queue handling WRKSMSMSGQ
10. Work with Message Severity Overrides WRKSMSOVR
More...
Type choice or command
===>
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
MA b MW 21/007

Select **1** from the main menu; **Send a message**.


Send a message
Type the message
This is a quick message
Forwarding form . . . . . 0 Number, F4=prompt
Time of dispatch . . . . . 0-00-00 0:00:00 Date and time F4=Prompt
Distribution list . . . . . Name, F4=Prompt
Receiver
User Country Phone Description
More...
F3=Slut F4=Liste F5=Opfrisk F10=Send F11=Expand F12=Afbryd
(c) Copyright Agent Data ApS, Denmark 1995 - 2007. All rights reserved.
MA a MW

Send a quick message:

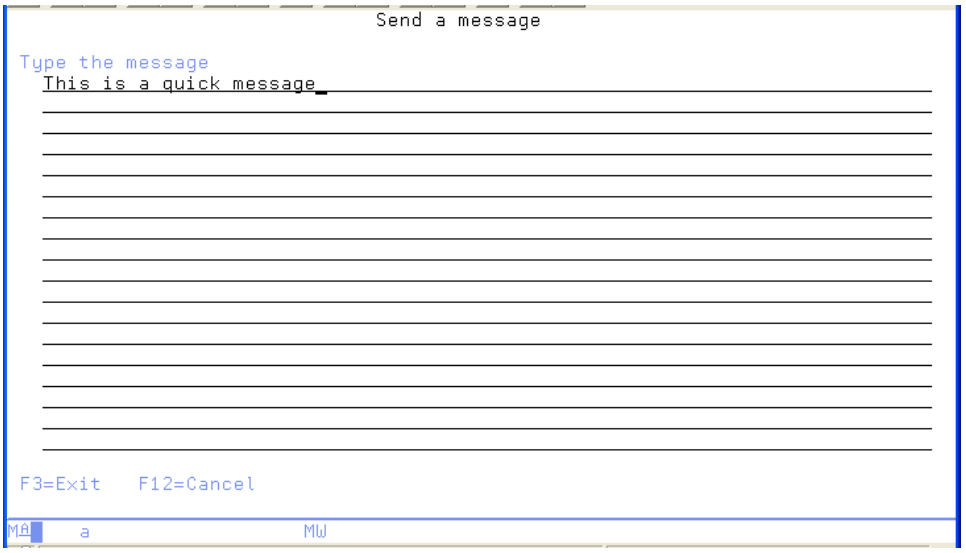
Type the message in the field; **Type the message.**

Set the cursor in the phone field and type the phone number of the recipients GSM phone.

Press F10 to send.

A standard SMS is 160 characters. The system will handle long messages totalling 1350 characters.

Press F11 to expand the panel.
Write the message and press enter.



Long messages are sent as concatenated SMS.
That means that a message on e.g. 300 characters is sent and charged as two SMS.

The message will be displayed as one message in all mobile phones - or SMS systems - that supports concatenated SMS.

Early GSM phones, will display the message in two separate SMS.

Note: *The GSM modem is a requirement for this feature; concatenated SMS.*

Tip
You can create a forced line break using: \n

Example: Greetings! \nYou are the winner of the week.

The resulting SMS will read:

Greetings!
You are the winner of the week.

(This will only work on GSM Terminals)

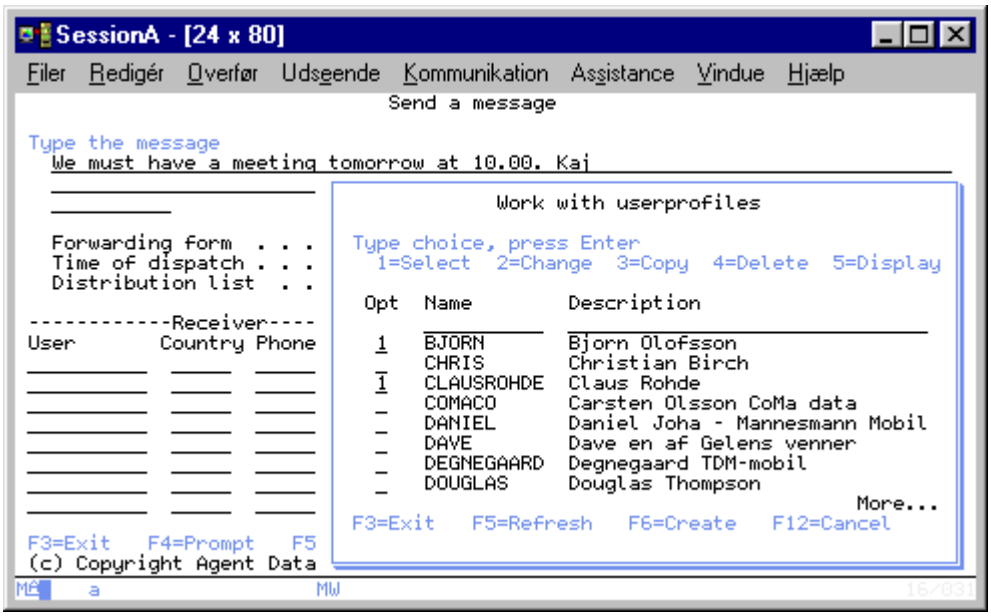
4.3. Message handling.

The screen **Send a message**, gives you the possibility to control the message with functions:

User ID	See 4.3.1
Forwarding form	See 4.3.2
Time of dispatch	See 4.3.3
Distribution list	See 4.3.4

4.3.1. User ID.

In the field User ID you have the possibility to determine, whether the message is to be sent to one, or several predefined persons. Press F4 to receive a list of user profiles.
Select one, or several users, by marking with **1**.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Send a message
Type the message
We must have a meeting tomorrow at 10.00. Kaj
Forwarding form . . .
Time of dispatch . . .
Distribution list . .
Receiver
User Country Phone
F3=Exit F4=Prompt F5
(c) Copyright Agent Data
Work with userprofiles
Type choice, press Enter
1=Select 2=Change 3=Copy 4=Delete 5=Display
Opt Name Description
1 BJORN Bjorn Olofsson
CHRIS Christian Birch
1 CLAUSROHDE Claus Rohde
COMACO Carsten Olsson CoMa data
DANIEL Daniel Joha - Mannesmann Mobil
DAVE Dave en af Gelens venner
DEGNEGAARD Degnegaard TDM-mobil
DOUGLAS Douglas Thompson
More...
F3=Exit F5=Refresh F6=Create F12=Cancel

4.3.2. Forwarding form.

You have the possibility to determine the message form to use, by choosing a number from 0 - 3.
In larger organizations, it is not always possible to know, if the person who needs to receive an important message, is at his/her desk. It might be difficult to determine whether the message should be sent as an SMS message, or to use the ordinary mail system on the AS/400 - for instance through Office.

SMS BlueNote gives you the possibility to combine the systems.

F4 shows you a list of the possibilities:

0= User profiles (the recipients) message form is used.

1= The message is only sent as an SMS text to a mobile phone.

2= The message is sent, both as an SMS text and as an Office/mail message.

3= The message is only sent as an SMS text, if the user is not logged on to the system. Otherwise the message is sent as an Office message.

Please note ! If the recipient is on the system, the message will be logged on the system too.

4.3.3. Time of dispatch.

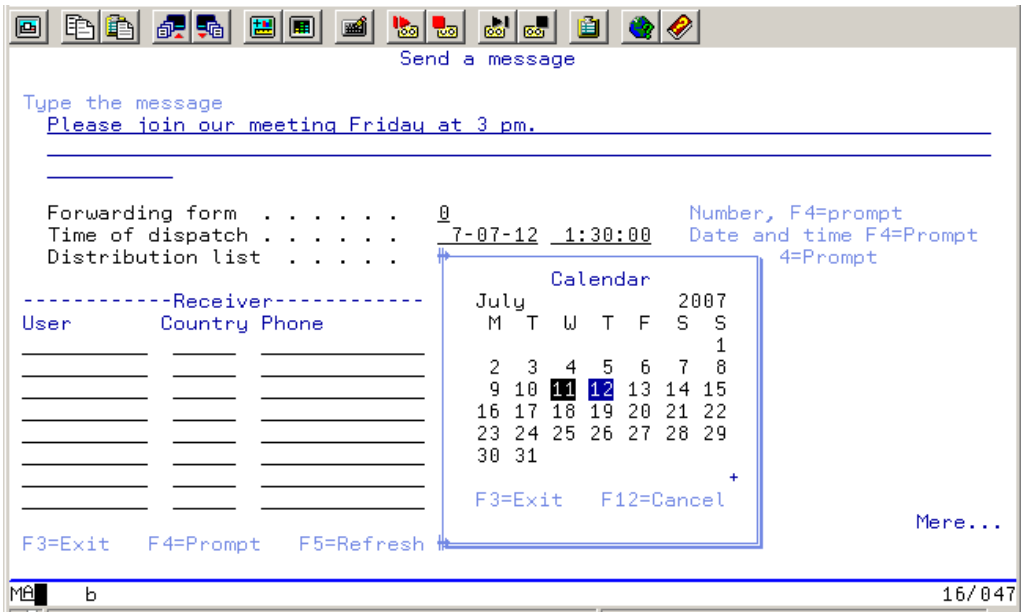
SMS BlueNote has a built-in calendar function. It gives you the possibility to postdate a message (with date and time).

Example:
You want to make sure, that all the salespersons are notified of an important meeting the following Friday, at 3.00 p.m.

You type the message: *Remember the meeting Friday at 3.00 p.m.!.*

On the **Time of dispatch** you type the date of the transmission along with the time you wish to send the message. It could for instance be at 1.30 p.m. following Thursday.

If you have any doubts regarding the date, press F4 on the time of transmission. The system will display a calendar, where you mark the date with the cursor you wish the message sent. You can also scroll forward, or back in the calendar with "page up" and "page down".


Send a message
Type the message
Please join our meeting Friday at 3 pm.
Forwarding form 0
Number, F4=prompt
Time of dispatch 7-07-12 1:30:00
Date and time F4=Prompt
Distribution list . . . . . 4=Prompt
Calendar
July 2007
M T W T F S S
1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31
F3=Exit F12=Cancel
----------Receiver----------
User Country Phone
F3=Exit F4=Prompt F5=Refresh
Mere...
MA b
16/047

Combine SMS BlueNote with IBM job scheduler. WRKJOBSCDE
You can also use the OS/400 own job scheduler to send a message. It can e.g be a message that confirms to the IT manager that the SMS system is active.

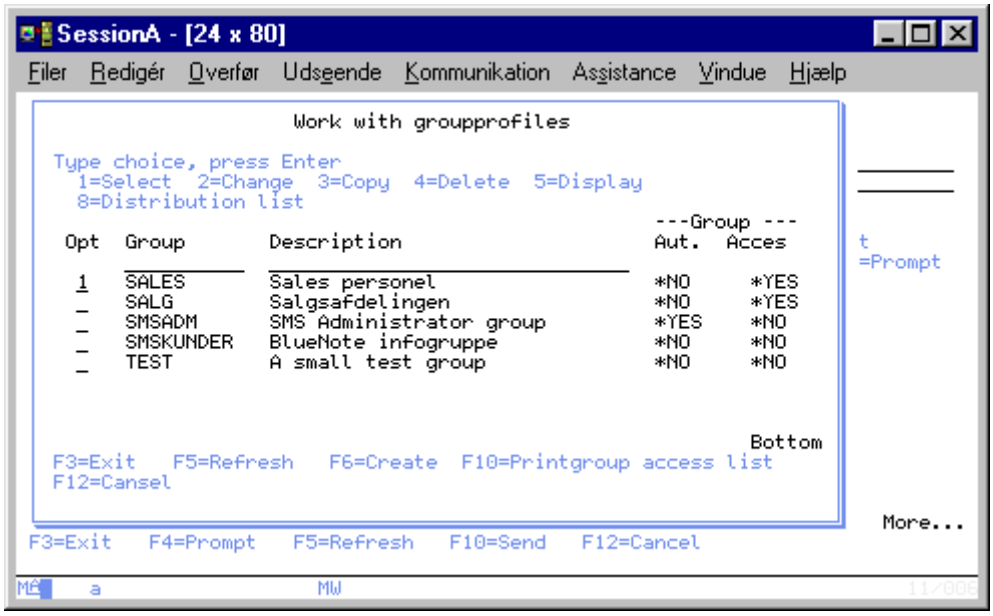
Example - This message is sent to Joe each morning at 8:

ADDJOBSCDE JOB(DAILY) CMD(SMS/SNDSMSMSG TEXT('Morning – SMS is active') USRPRF(JOE)) FRQ(*WEEKLY) SCDDATE(*NONE) SCDDAY(*ALL) CDTIME('08:00:00')

4.3.4. Distribution list.

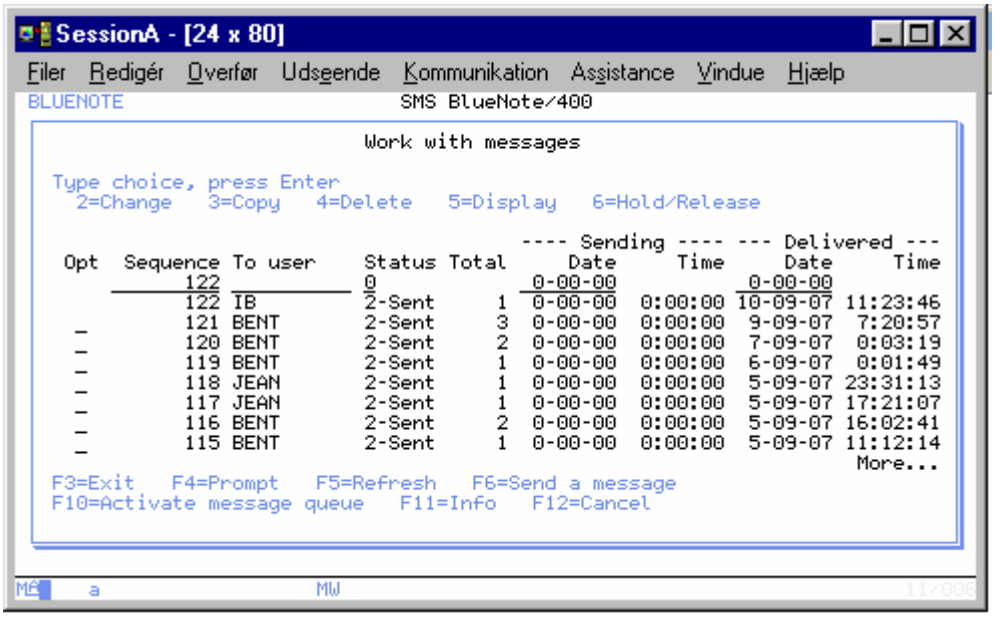
In the field Distribution List you have the possibility to choose whether the message should be sent to predefined groups of persons, for instance sales personnel or technical personnel.

Press F4 in order to receive a list of user groups. Select the group, with "1".



4.4. Work with messages.

Type 2 from the main menu, in order to access the screen **Work With Messages**. Here you receive a complete status on all the messages you have sent, or received from SMS BlueNote.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE
SMS BlueNote/400
Work with messages
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display 6=Hold/Release
---- Sending ---- --- Delivered ---
Opt Sequence To user Status Total Date Time Date Time
122 0 0-00-00 0-00-00
122 IB 2-Sent 1 0-00-00 0:00:00 10-09-07 11:23:46
121 BENT 2-Sent 3 0-00-00 0:00:00 9-09-07 7:20:57
120 BENT 2-Sent 2 0-00-00 0:00:00 7-09-07 0:03:19
119 BENT 2-Sent 1 0-00-00 0:00:00 6-09-07 0:01:49
118 JEAN 2-Sent 1 0-00-00 0:00:00 5-09-07 23:31:13
117 JEAN 2-Sent 1 0-00-00 0:00:00 5-09-07 17:21:07
116 BENT 2-Sent 2 0-00-00 0:00:00 5-09-07 16:02:41
115 BENT 2-Sent 1 0-00-00 0:00:00 5-09-07 11:12:14
More...
F3=Exit F4=Prompt F5=Refresh F6=Send a message
F10=Activate message queue F11=Info F12=Cancel
MW

2=Change, you can Change a message that has not yet been sent.

3=Copy, you can copy a message and send it again - maybe to a new user!.

4=Delete, you can delete messages. This gives you a chance to regret a message, if your iSeries has not yet connected the modem or operator.

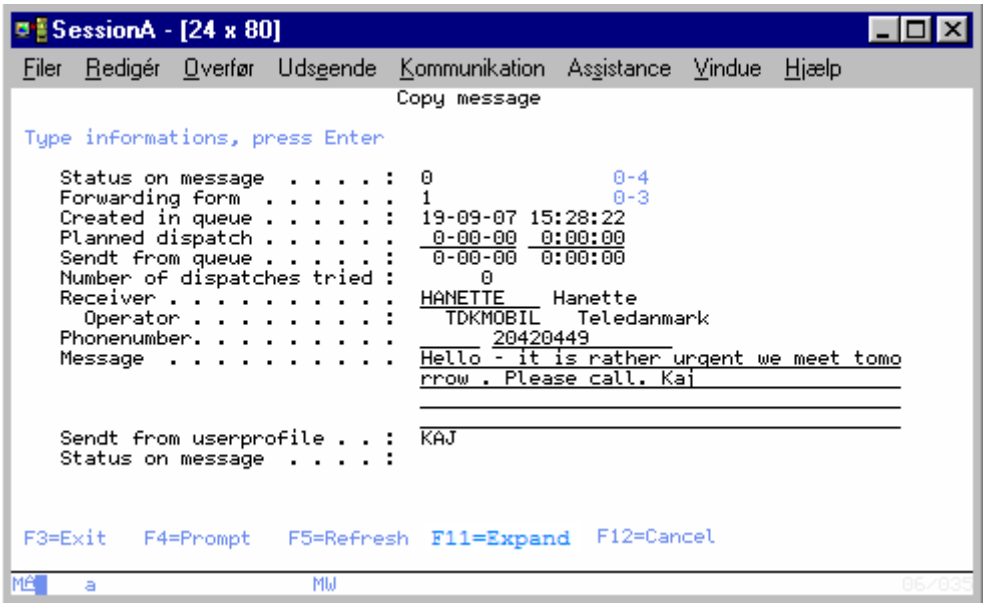
(You can find your selves in a situation where a program has generated several hundred messages that you would like to delete in one go.
Do as follows:
Stop the Subsystem
Write : CLRPFM MSG00
Start the Subsystem

Note.
CLRPFM MSG00 will delete everything in the log!)

5=Display, you can display a complete status on the message along with the text.

6=Hold/Release, you can hold back or release a message, postdated, if you are having doubts whether or not to send it.

F6=Send message. If you have chosen to Change, copy or release a message, you send the message by pressing F6.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Copy message
Type informations, press Enter
Status on message . . . . : 0 0-4
Forwarding form . . . . . : 1 0-3
Created in queue . . . . . : 19-09-07 15:28:22
Planned dispatch . . . . . : 0-00-00 0:00:00
Sendt from queue . . . . . : 0-00-00 0:00:00
Number of dispatches tried : 0
Receiver . . . . . : HANETTE Hanette
Operator . . . . . : TDKMOBIL Teledanmark
Phonenumber. . . . . : 20420449
Message . . . . . : Hello - it is rather urgent we meet tomo
rrow . Please call. Kaj
Sendt from userprofile . . : KAJ
Status on message . . . . :
F3=Exit F4=Prompt F5=Refresh F11=Expand F12=Cancel
MA a MW

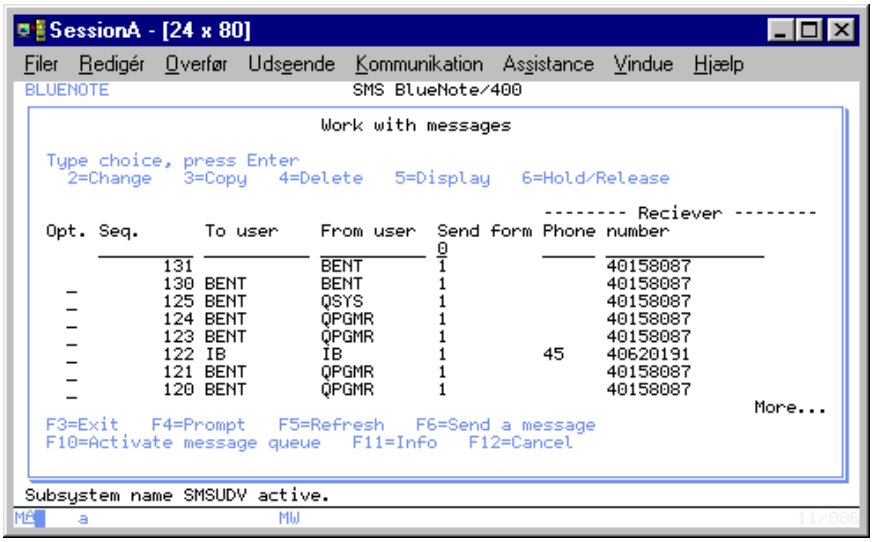
The person you are sending a message too, could have turned off his mobile phone, or the phone could be out of reach in the time of dispatch.
F11 will expand the view can display long SMS.

A code gives you a general view:

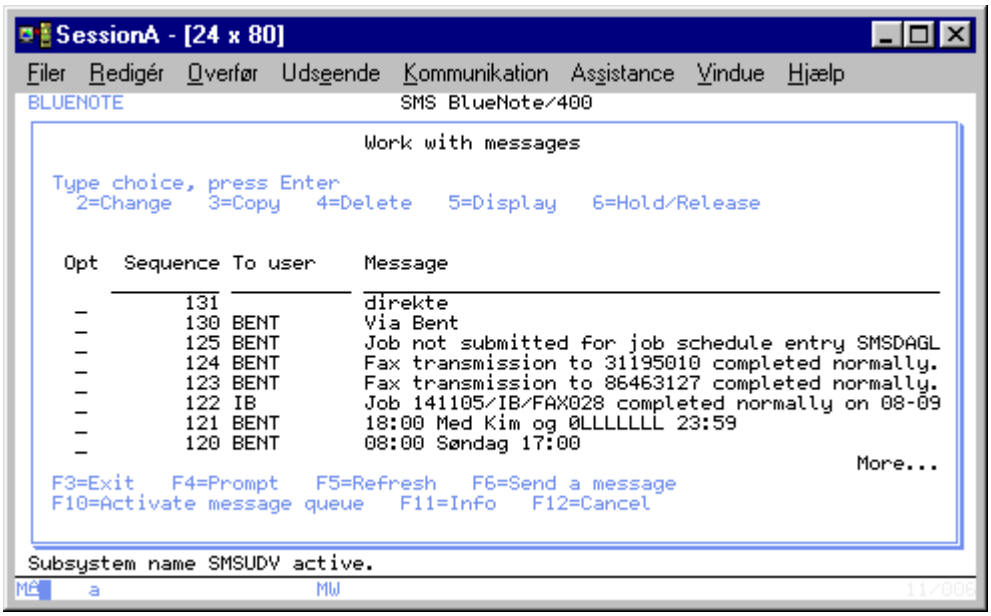
0=Queue	Is still not sent from your iSeries. You can edit or delete the message.
1= Sending	The message is received by the teleoperator and will be sent.
2= Sent	The message is sent from the teleoperator.
3= Error	Check if you use the right telephone numbers for the recipient and operator.
4= Hold.	The message is set on hold for later release.
5=Receive	A message is received on the system.

By typing **5= Display**, you are able to get a detailed status, together with the text on the chosen message.

By pressing **F11=Info**, **Work With Messages**, you can receive more information regarding the message form you used. You also get a display of the country code and the phone number on the receiver.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote/400
Work with messages
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display 6=Hold/Release
-------- Reciever --------
Opt. Seq. To user From user Send form Phone number
0
131 BENT 1 40158087
130 BENT BENT 1 40158087
125 BENT QSYS 1 40158087
124 BENT QPGMR 1 40158087
123 BENT QPGMR 1 40158087
122 IB IB 1 45 40620191
121 BENT QPGMR 1 40158087
120 BENT QPGMR 1 40158087
More...
F3=Exit F4=Prompt F5=Refresh F6=Send a message
F10=Activate message queue F11=Info F12=Cancel
Subsystem name SMSUDV active.

By repressing **F11=Info** you can display the text on the message that you sent. On the screen the first 45 characters of the message are shown.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote/400
Work with messages
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display 6=Hold/Release
Opt Sequence To user Message
131 direkte
130 BENT Via Bent
125 BENT Job not submitted for job schedule entry SMSDAGL
124 BENT Fax transmission to 31195010 completed normally.
123 BENT Fax transmission to 86463127 completed normally.
122 IB Job 141105/IB/FAX028 completed normally on 08-09
121 BENT 18:00 Med Kim og 0LLLLLLL 23:59
120 BENT 08:00 Søndag 17:00
More...
F3=Exit F4=Prompt F5=Refresh F6=Send a message
F10=Activate message queue F11=Info F12=Cancel
Subsystem name SMSUDV active.

Chapter 5. System surveillance on iSeries

SMS BlueNote can be connected to message queues on OS/400, so that the AS/400 or iSeries automatically sends system messages to the GSM phones of the system operators. *The system operator will always be able to supervise the jobs on evenings, nights, and weekend, without being near a monitor. The GSM unit enables the system operator to answer on all *REPLY messages that are sent from the AS/400 or iSeries.*

All types of system messages can be sent from AS/400. The system messages have priority after message queue and severity level.

Registration of system operators. Optional duty planning.

Alarm function. All types of telephones can be reached with an alarm call, generated by serious system errors.

User defined communication protocol.

Runs it's own sub-system.

SMS BlueNote's own data queues gives minimal strain on the system.

API functions.

Starts automatically after IPL. (Optional).

The same system operator can supervise several iSeries or AS/400, at the same time.

Different system operators can supervise special fields of responsibillity.

5.1. Principles of monitoring.

SMS BlueNote can monitor on almost all activities on AS/400. You can monitor on a single message, on a message queue, message file, job, user profile and a conditional monitoring. Messages regarding all movements on AS/400 can be sent as SMS to a GSM phone. This is however not practical - This is why SMS BlueNote gives you the option to set up a filter, and narrows down the number of messages sent to the system operators GSM phone.

The new features in this version are:

The message queue will not lock QUESEC while monitoring so you will not have to stop the BlueNote subsystem in order to answer on a message.

Multiple users can monitor the AS/400 simultaneously - but also on different stages. Example: The IT-manager is always monitoring the AS/400, but is only notified on say 5 - 6 critical items of his own choice. The person who are the operator on duty, will get these as well as other messages set up in the message filter. A super critical message like Desk Crash can be sent to the whole IT-staff - regardless of duty plans.

Enhanced message filter.
You can include and omit on system messages - but it is also possible, in deep detail, to pinpoint jobs, users, programs etc. It is also possible to set up rules for auto-reply.

Severity override.
You can define your own severity level for messages sent from BlueNote and make a "Severity Override" enabling you to define your own severity groups. You can let messages with a certain severity level raise a tone alarm while being sent, while all other messages, with a lower severity - only are sent as SMS.

The BlueNote monitoring system can also create break messages for the system operator's AS/400 display.

5.2. Work with duty plan.

SMS Blue Note gives you the possibility to create a duty plan, where you, in advance, determine who will receive the system messages.
In order to connect SMS BlueNote to IBM's Job Scheduler you must use the commands ADDSMSDTYE and RMVSMSDTYE.

Below is an example on how you create a weekend duty for Joe, who is going to be the system operator in charge, every weekend from Friday afternoon at 16.00 to Monday morning at 08.00.

Start duty.
Enter the following command:

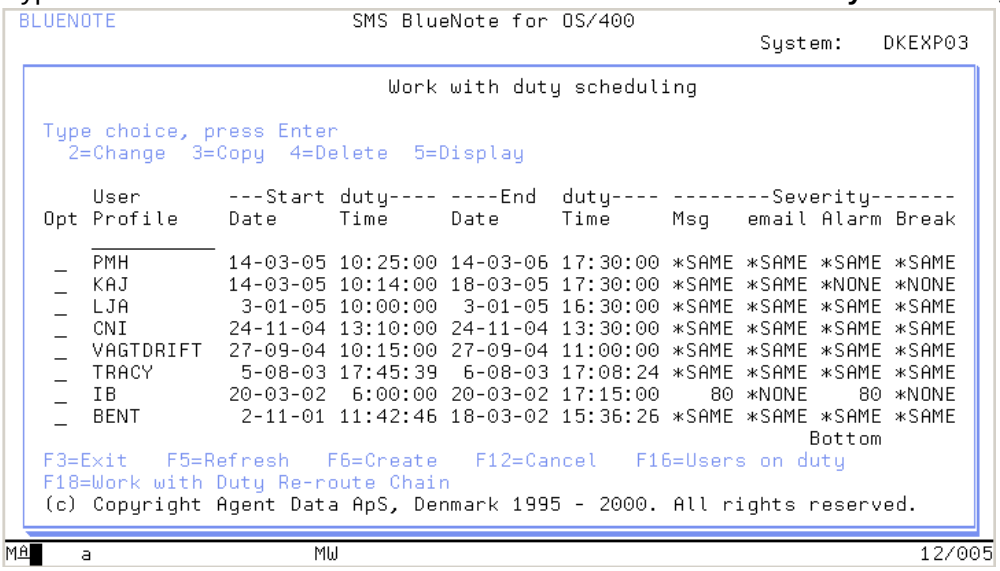
ADDJOBSCDE JOB(SMSSTR) CMD (ADDSMSDTYE ACTEXT('Weekend duty for Joe') USRPRF(JOE) FRQ(*WEEKLY) SCDDATE(*NONE) SCDDAY(*FRI) SCDTIME(160000)

End duty.
Enter the following command:
ADDJOBSCDE JOB(SMSEND) CMD(RMVSMSDTYE) FRQ(*WEEKLY) SCDDATE(*NONE) SCDDAY(*MON) SCDTIME(080000)

To add a new duty to the duty plan, use the command ADDSMSDTYE.

To end a duty or rotation from the duty plan, use the command RMVSMSDTYE.

Type 8 on the main menu in order to access the screen **Work with duty scheduling**:


BLUENOTE
SMS BlueNote for OS/400
System: DKEXP03
Work with duty scheduling
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
Opt User Profile ---Start duty---- ----End duty---- --------Severity-------
Date Time Date Time Msg email Alarm Break
_ PMH 14-03-05 10:25:00 14-03-06 17:30:00 *SAME *SAME *SAME *SAME
_ KAJ 14-03-05 10:14:00 18-03-05 17:30:00 *SAME *SAME *NONE *NONE
_ LJA 3-01-05 10:00:00 3-01-05 16:30:00 *SAME *SAME *SAME *SAME
_ CNI 24-11-04 13:10:00 24-11-04 13:30:00 *SAME *SAME *SAME *SAME
_ VAGTDRIFT 27-09-04 10:15:00 27-09-04 11:00:00 *SAME *SAME *SAME *SAME
_ TRACY 5-08-03 17:45:39 6-08-03 17:08:24 *SAME *SAME *SAME *SAME
_ IB 20-03-02 6:00:00 20-03-02 17:15:00 80 *NONE 80 *NONE
_ BENT 2-11-01 11:42:46 18-03-02 15:36:26 *SAME *SAME *SAME *SAME
Bottom
F3=Exit F5=Refresh F6=Create F12=Cancel F16=Users on duty
F18=Work with Duty Re-route Chain
(c) Copyright Agent Data ApS, Denmark 1995 - 2000. All rights reserved.
MA a MW 12/005

The Key "F16=Users on duty" displays, with user ID, who is on duty. If there is no system operator on duty, when you look at the screen, it will say *None.
The list is shown in falling sequence.

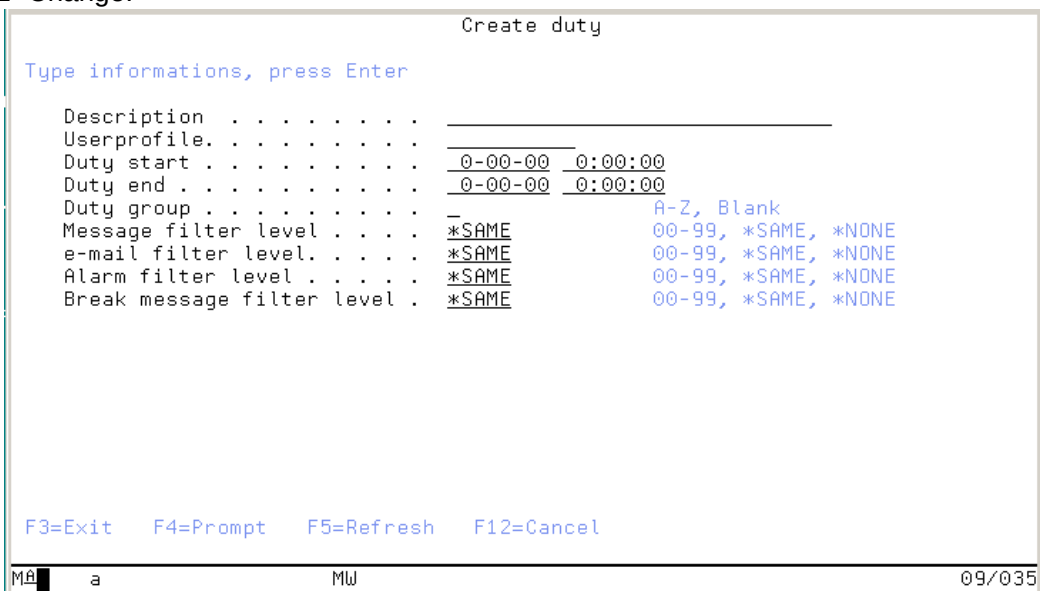
In order to form a general view, we recommend, that you use the OS/400 command WRKJOBSCDE JOB(SMS*).

5.2.1. Change special duty plan.

During the weekly planning we recommend that you use the IBM Job Scheduler. But if you have to create special duty plans, for instance during holidays, you can change the duty plan from the SMS BlueNote main menu.

Select menu option 8 from the main menu to enter "Work with duty plan".

You can create a duty, by pressing the F6 key, or you can Change a duty, by typing 2=Change.

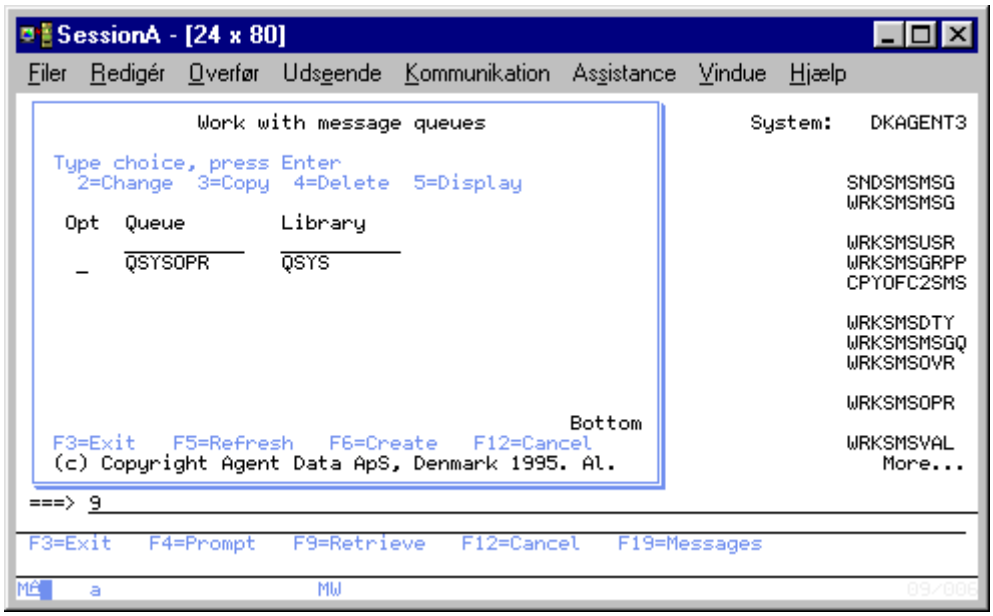

Create duty
Type informations, press Enter
Description . . . . . .
Userprofile. . . . . .
Duty start 0-00-00 0:00:00
Duty end 0-00-00 0:00:00
Duty group . . . . . A-Z, Blank
Message filter level . . . . *SAME 00-99, *SAME, *NONE
e-mail filter level. . . . . *SAME 00-99, *SAME, *NONE
Alarm filter level . . . . . *SAME 00-99, *SAME, *NONE
Break message filter level . *SAME 00-99, *SAME, *NONE
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a MW 09/035

Description:	The operator on duty.
User profile:	User F4 displays a list.
Duty start:	Date and time. F4 displays a calendar.
Duty end:	Date and time. F4 displays a calendar.
Duty group	Duty Grups A-Z can be used to special fields of responsibillity. Blank will supervise all events included in the filter. Example: Smith is Duty Group “A” and monitors QSYSOPR. Jones is Duty Group “B” and monitors WINDOWS Servers Jensen has “Blank” value and monitors both above.
Message filter level	Sevirty level for SMS messages received
E-mail filter level.	Severity level for e-mail messages received
Alarm filter level	Severity level to trigger a phone call
Break message filter level.	Severity level that triggers break messages.

The Severity levels in this panel will OVERULE the values from the user profile.

5.3. Work with message queues and filters.

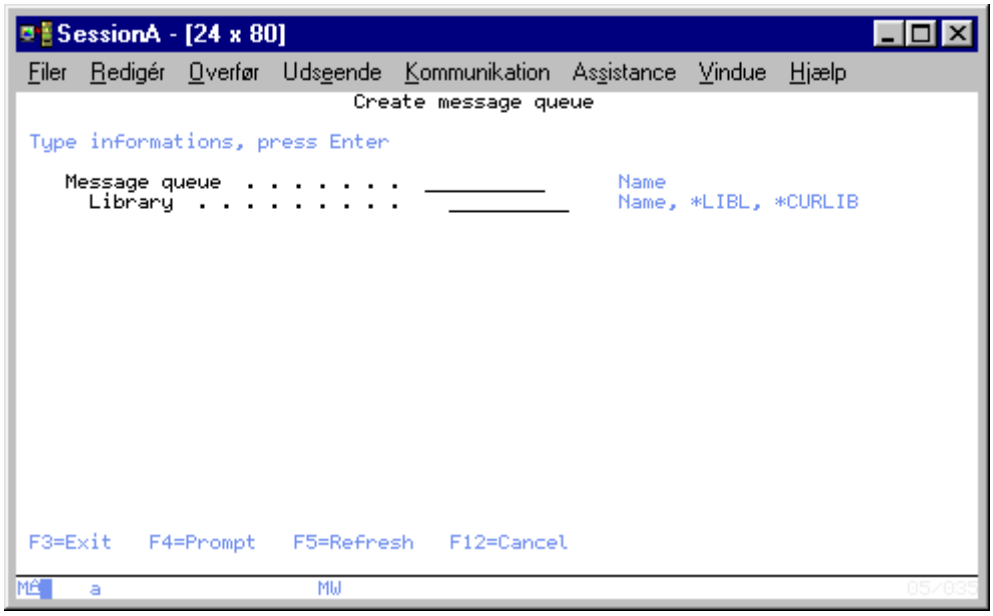
Type 9 on the main menu, in order to access the screen **Work with message queues**:



Here you have the option to define which message queues to be supervised.

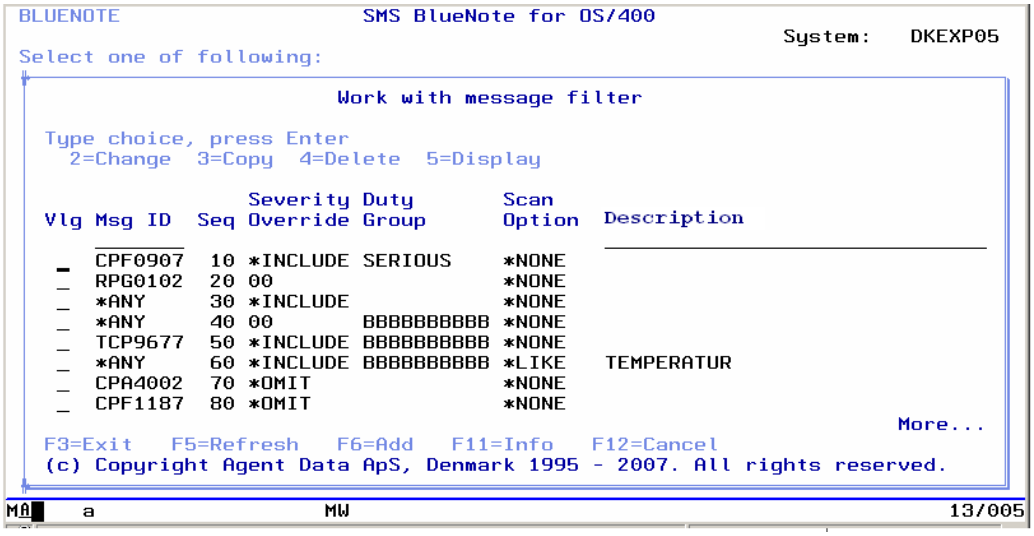
Queue: Name of the queue
Library: Name of the library

By pressing F6 you can create the message queue to be connected to SMS.


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Create message queue
Type informations, press Enter
Message queue . . . . . Name
Library . . . . . Name, *LIBL, *CURLIB
F3=Exit F4=Prompt F5=Refresh F12=Cancel
a MW

5.4. Work with Message severity override

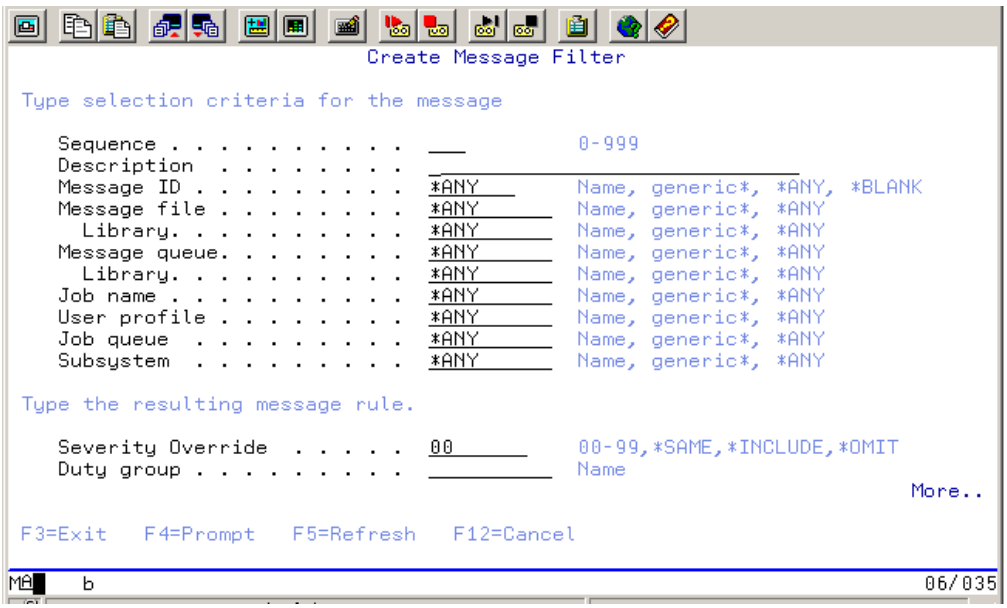
By typing 10**=Message Severity Overrides**, you have the option to create a positive/negative list of the messages you want to monitor.


BLUENOTE
SMS BlueNote for OS/400
System: DKEXP05
Select one of following:
Work with message filter
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
Vlg Msg ID Seq Severity Override Duty Group Scan Option Description
CPF0907 10 *INCLUDE SERIOUS *NONE
RPG0102 20 00 *NONE
*ANY 30 *INCLUDE *NONE
*ANY 40 00 BBBBBBBBBB *NONE
TCP9677 50 *INCLUDE BBBBBBBBBB *NONE
*ANY 60 *INCLUDE BBBBBBBBBB *LIKE TEMPERATUR
CPA4002 70 *OMIT *NONE
CPF1187 80 *OMIT *NONE
More...
F3=Exit F5=Refresh F6=Add F11=Info F12=Cancel
(c) Copyright Agent Data ApS, Denmark 1995 - 2007. All rights reserved.
MA a MW 13/005

There will always be known messages with a high severity level, you do wish to receive - or to omit. It could for instance be a message, concerning the printer:

You can also find yourself in a situation, where know messages should be answered on automatically - or handled by a preset pattern.

The OS/400 severity level set by IBM does not necessarily match what you actually consider severe, running the jobs on your iSeries. SMS BlueNote gives you the possibility to override these and define your own severity level.


Create Message Filter
Type selection criteria for the message
Sequence 0-999
Description
Message ID *ANY Name, generic*, *ANY, *BLANK
Message file *ANY Name, generic*, *ANY
Library. *ANY Name, generic*, *ANY
Message queue. *ANY Name, generic*, *ANY
Library. *ANY Name, generic*, *ANY
Job name *ANY Name, generic*, *ANY
User profile *ANY Name, generic*, *ANY
Job queue *ANY Name, generic*, *ANY
Subsystem *ANY Name, generic*, *ANY
Type the resulting message rule.
Severity Override 00 00-99,*SAME,*INCLUDE,*OMIT
Duty group Name
More..
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA b 06/035

The selection criteria's.

Sequence: 0-999
Sequence is the order in which messages are handled. Example: If two messages have the same message ID -it could be different jobs - you can in this field determine, which message is to be handled first.

Description: Type a short decription of the rule.

Message ID: Name, generic*, *ANY, *BLANK

Type message ID on the message to be retrieved, or left out, from the message queue. For further information about message queues - see handling of message queues

Message file: Name, *ANY
Message file where the selected MSGID is typed.
E.g. "QCPFMSG". If *ANY are selected the message would be treated indifferently to which message file the message ID are found in.

Library: Name, generic*, *ANY

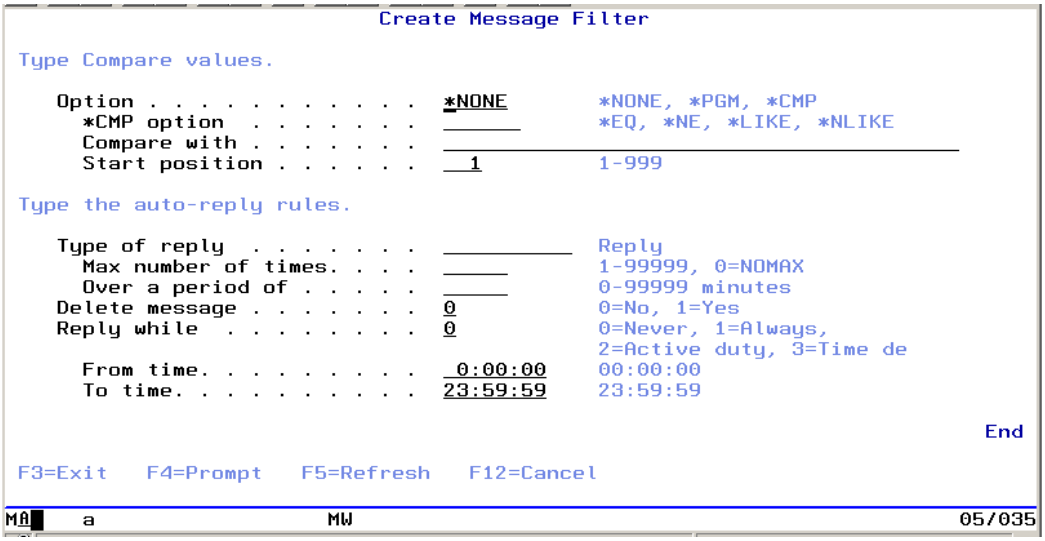
Message queue: Name, generic*, *ANY
Library: Name, *LIBL, *ANY
Job name: Name, generic*, *ANY
User profile: Name, generic*, *ANY
Subsystem: Name, generic*, *ANY

The resulting message rule.

Severity Override: 00-99, *INCLUDE, *OMIT
Messages above this severity level will be monitored and sent as SMS. It is possible for you to define (override) your own severity level on SMS BlueNote. If you enter a new value - it will override the original severity level (but only in SMS BlueNote). You can thus determine if a message should be monitored - even if the original severity level indicated otherwise. You can also permanently Include or Omit a message from the system.

Duty group: Duty Grups A-Z can monitor special fields of responsibillity. Blank will supervise all events included in the filter.

Example:
Smith is Duty Group “AAA” and monitors QSYSOPR.
Jones is Duty Group “BBB” and monitors WINDOWS Servers
Hanson is Duty Group “CCC” and Monitors the main printer.
Jensen has “Blank” value and monitors all above.


Create Message Filter
Type Compare values.
Option . . . . . *NONE *NONE, *PGM, *CMP
*CMP option . . . . . *EQ, *NE, *LIKE, *NLIKE
Compare with . . . . .
Start position 1 1-999
Type the auto-reply rules.
Type of reply . . . . . Reply
Max number of times. . . . 1-99999, 0=NOMAX
Over a period of . . . . . 0-99999 minutes
Delete message . . . . . 0 0=No, 1=Yes
Reply while . . . . . 0 0=Never, 1=Always,
2=Active duty, 3=Time de
From time. 0:00:00 00:00:00
To time. 23:59:59 23:59:59
End
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a MW 05/035

Information to be compared.

Option *NONE, *PGM, *CMP

The field can indicate special options for Severity override for a message. There are the following options

*NONE

No special action is taken.

*PGM

The filter program will be called every time this message ID appears.

The Parameter list to the program must be as follows:

1. Parameter: Level override to be returned (Output)

2. Parameter: Retrieve Message format RTVM0200 (Input). For more information for format RTVM0200 see OS/400 manual "System Programmer's Interface Reference" guide (SC41-4801) under "Retrieve Message (QMHRTVM) API".

*CMP

Override of level will first happen when the conditions for "Compare with" are fulfilled.

*CMP option: *EQ, *NE, *LIKE, *NLIKE

If *CMP is indicated in the field "Option" there must be a comparison possibility in this field.

The combinations are as follows:

*EQ

Message data must hold the exact value indicated in the field "Compare with", before the Severity Overide are used.

*NE

Message data must NOT hold the exact value which is indicated in the field Compare with", before Severity override are used.

*LIKE
Message data are scanned for the value that is indicated in the field "Compare with". If the value are found - the "severity override will be used.

*NLIKE
Message data are scanned for the value which id indicated in the field "Compare with". The severity override will be used if values are NOT found.

Compare with: Enter compare values in this field. Hex data can be entered with the use of X' (example X'4711') .

Start position 1-999 Scan start position of the compare values.

Type the auto-reply rules.

Type of reply D, C, I ect…. D = Dump, C = Cancel, I = Ignore

Max number of times:
The allowed number of times this partcular message should be automatically responded, before it is forward as SMS or email.

Over a period of:
The time frame set for the operations above

Delete message 0=No
1=Yes will remove all traces of the message in the iSeries System.

Reply while . . . . . 0 = Never/Hold,
1 = Always,
2 = Active duty,
3 = Time Period
From time. 00:00:00
To time. 23:59:59

SMS BlueNote can be prepared for only sending a message once (Type 15 in the main menu). The system can control against identical messages on MSG ID, Text, and receiver. You do not have to worry, that a program suddenly "loops", and thereby sends the same message endlessly to the operator on duty's GSM mobile phone.

5.5. Duty Reply Chain

You can find yourself in a situation where an SMS message is sent to a pre-defined number, but is unable to bee responded, because of various difficulties encountered (mobile phone switched off, mobile phone in a non reception area, etc).

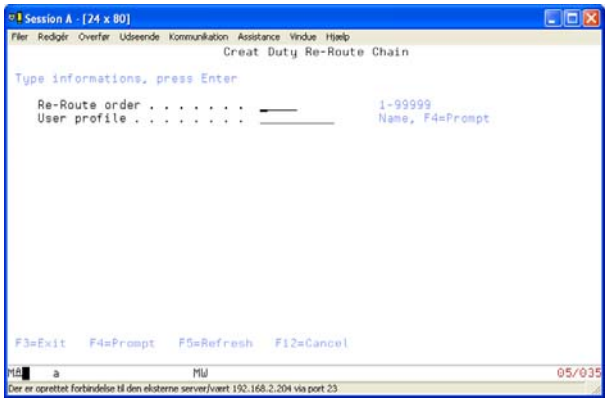
This can be a problem if the SMS message is of great importance and will need the rapid intervention.

SMS BlueNote gives you the opportunity to prepare at backup for such a situation by creating a Duty Reroute Chain.

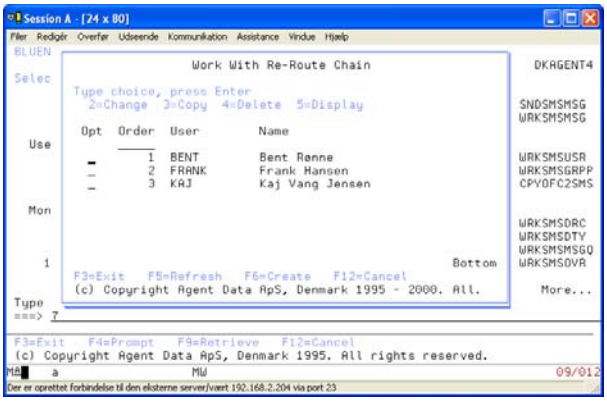
The Duty Reroute Chain is a number of people that will receive the SMS message in case the original message remains unanswered for X seconds. The message will be passed on to the next person in the chain and rotate in the chain until the message is finally answered.

Go to the SMS BlueNote main menu.

Select Option 7.” Work with Duty Re-route Chain”


Session A - [24 x 80]
Creat Duty Re-Route Chain
Type informations, press Enter
Re-Route order . . . . . ____
User profile . . . . . _____
1-99999
Name, F4=Prompt
F3=Exit F4=Prompt F5=Refresh F12=Cancel

Press F6 to create the members of the chain.


Session A - [24 x 80]
Work With Re-Route Chain
DKAGENT4
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
Opt Order User Name
1 BENT Bent Rønne
2 FRANK Frank Hansen
3 KAJ Kaj Vang Jensen
Bottom
F3=Exit F5=Refresh F6=Create F12=Cancel
(c) Copyright Agent Data ApS, Denmark 1995 - 2000. All.
More...
(c) Copyright Agent Data ApS, Denmark 1995. All rights reserved.

The unanswered message will always rotate in the order indicated.

Example:
If “Kaj” is the operator on duty and the message is unanswered the message will be rotated forward to “Bent” then “Frank” and then back to Kaj again.

The message will continue to rotate until it is answered.

The forwarding time of the message is default set to 1800 seconds – that is 30 minutes.

You can reduce/speed up the time by changing the Data Area manually.

Example - Change to 15 minutes:

ChgDtaAra DtaAra(SMS/DRCTime) Value(X'00900F')

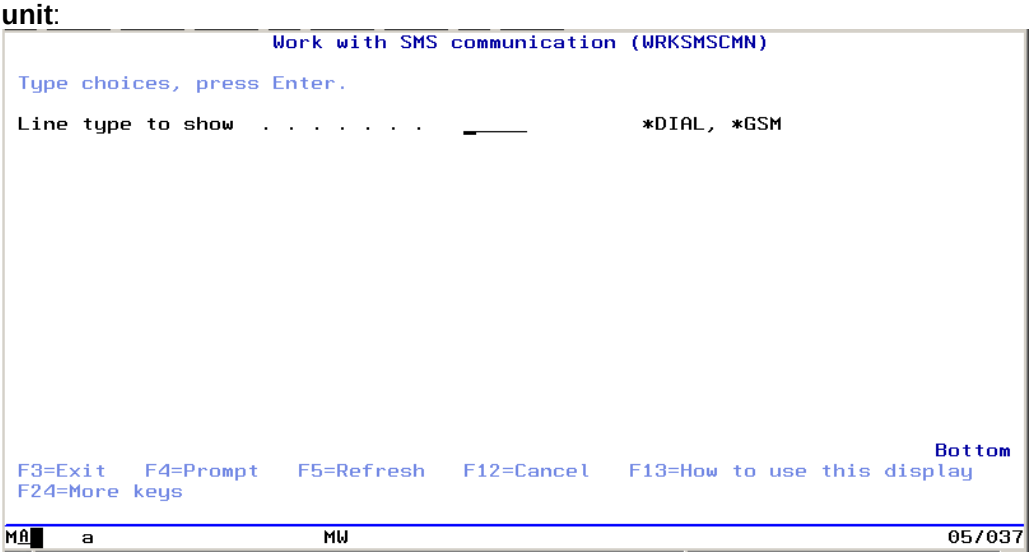
The reaction time **MUST NOT** have a lower value than the one used in “Poll Message Queue” in option 15 maintain System values.

Note:
System messages that are answered manually (via a terminal) **must be deleted** after the reply (use the F11 key) as long as “Duty Reroute Chain” is active.

5.6. The subsystem

SMS Blue Note has been designed to run it's own system. In this system there is always just one job at the time. Therefore SMS BlueNote gives minimal strain on your system.

Type 21 on the main menu, in order to access **SMS status for line, controller and unit**:


Work with SMS communication (WRKSMSCMN)
Type choices, press Enter.
Line type to show . . . . . *DIAL, *GSM
Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
MA a MW 05/037

Here you can follow how SMS BlueNote communicates with the environment. For instance you can se if a modem is turned off.
The line is only varied on when SMS BlueNote actually communicates.

5.7. Monitor Hardware. “Low-level” messages.

It is possible to monitor on "low -level" messages like Hardware. It will however require that you create the following message queue:

===> CRTMSGQ MSGQ(QSYS/QSYSMSG) TEXT
('Message queue for critical system messages')

This queue is not default but it will handle all the "system related messages. Once it is created it can be monitored in SMS BlueNote.

See the IBM's manual SC41-4203-00 for more information.

Info can also be reached at:

http://www-900.ibm.com/cn/support/library/as400/download/qbjagd00.pdf

Search for QSYSMSG. The following pages are an extrax.

Handling Important System Messages in the QSYSMSG Message Queue

The QSYSMSG message queue is an optional message queue that you create in the QSYS library. The QSYSMSG message queue can be used to monitor specific system messages that indicate potentially severe system conditions. Only messages that require immediate action are sent to the QSYSMSG message queue.
Monitor the QSYSMSG message queue to be aware of critical messages related to your system.

Creating the QSYSMSG Message Queue

To create the QSYSMSG message queue, enter the following command:
CRTMSGQ QSYS/QSYSMSG +
TEXT ('optional MSGQ to receive specific system messages')

Once the QSYSMSG message queue is created, certain specific system messages are directed to it. For example, the following message would be sent to the QSYSMSG message queue:
CPF0907 Serious storage condition may exist. Press HELP.
For a complete listing and description of these messages, see Chapter 8, "Working With Messages" in the CL Programming book.

You can write a break-handling program that monitors messages sent to the QSYSMSG message queue and takes action on specific messages you identify.

Handling Error Messages

To set up a program to receive messages from the QSYSMSG message queue, see Chapter 8, "Working With Messages" in the CL Programming manual.

A few important points about QSYSMSG:

1. You must create it in QSYS.
2. IBM decides what messages are sent to QSYSMSG, not you.
   Furthermore, IBM also determines which QSYSMSG messages are not send to QSYSOPR.

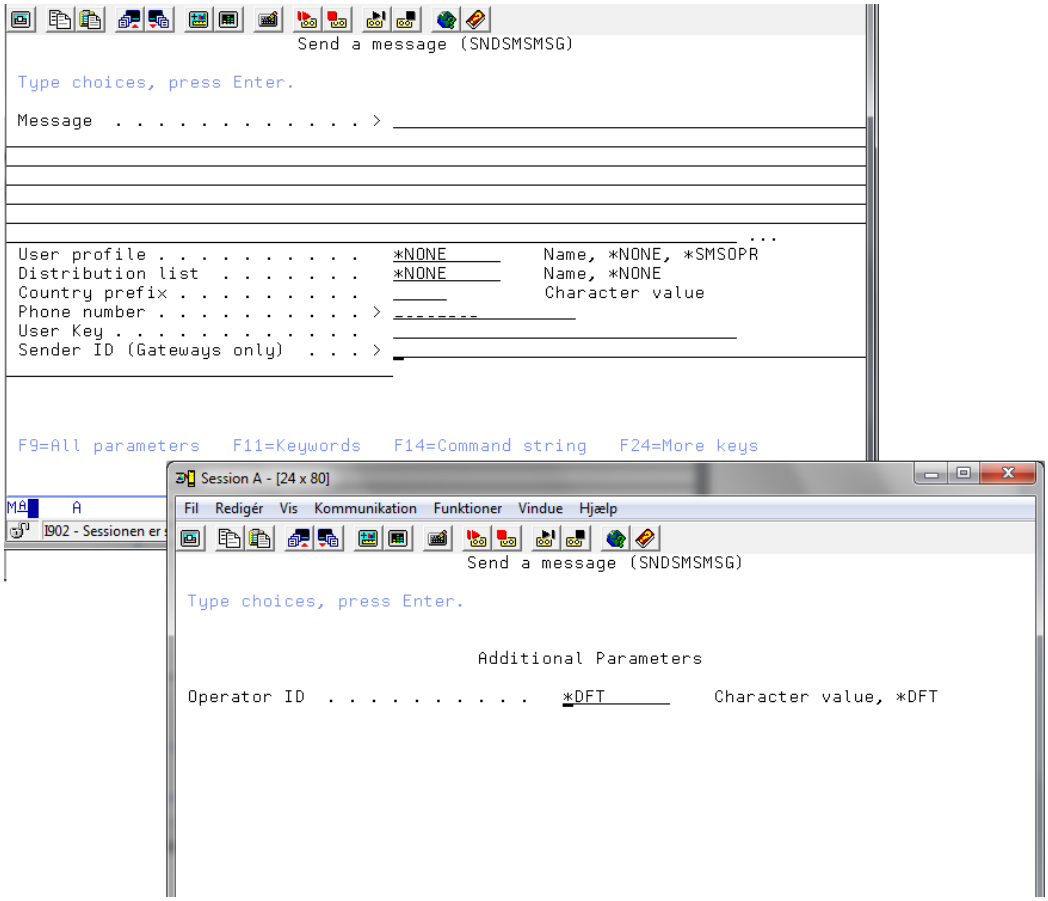
   The types of messages that go to both are:

   - DASD failure under RAID-5 for mirroring
   - Critical storage messages
   - Power failure/restore messages

   Typically security hacking types of messages are not sent to QSYSOPR, only QSYSMSG (if QSYSMSG exists in QSYS).

Chapter 6. API's and the SNDSMSMSG command

The BlueNote APIs allow the programmer, to integrate his own applications direct with SMS BlueNote.
You can call the SNDSMSMSG command from your own applications.


Send a message (SNDSMSMSG)
Type choices, press Enter.
Message . . . . . >
User profile . . . . . *NONE Name, *NONE, *SMSOPR
Distribution list . . . . . *NONE Name, *NONE
Country prefix . . . . . Character value
Phone number . . . . . >
User Key . . . . . >
Sender ID (Gateways only) . . . >
F9=All parameters F11=Keywords F14=Command string F24=More keys
Session A - [24 x 80]
Fil Redigér Vis Kommunikation Funktioner Vindue Hjælp
Send a message (SNDSMSMSG)
Type choices, press Enter.
Additional Parameters
Operator ID . . . . . *DFT Character value, *DFT

The SNDSMSMSG command has in addition to the standards parameters; User profile, Distribution list, Country code and Phone number - three additional parameters:

User Key'.
The field can be used for internal handling. It can hold e.g. a customer number.The value of the filed is NOT forwarded with the SMS.
It is displayed in the log in option 2. Work with messages and for query reports in the file MSG00.

Sender ID.
This is for Gateways only. You can add a Sender ID that will replace the Sender ID that is used default in the Gateway. See option 12 "Work with operators".

Operator ID
You can select the operator on this message from option 12 "Work with operators".

Send a SMS message (#SndSmsM) allows you to let a program send a SMS message with a preset text. The command SNDSMSMSG will normally be sufficient.

Send a SMS message (#SndSmsM) API

Required Parameter Group			
1	SMS message	Input	Char(160)
2	Receivers user id	I/O	Char(10)
3	Receivers country prefix	I/O	Char(5)
4	Receivers Mobil phone number	I/O	Char(15)
5	Delivery form	I/O	Dec(1)
6	Deferred delivery (Time stamp)	Input	Char(26)
7	Message id	I/O	Char(7)
8	Message file	I/O	Char(10)
9	Message file library	I/O	Char(10)
10	Message data	I/O	Char(160)
11	Check code	Input	Char(1)
12	Senders user ID	Input	Char(10)

Required Parameter Group

SMS message
Input; Char(160)
The message can contain digits and characters. If a message is sent to ALARM or numeric Pager, characters, if any, will be removed from the text. The length of the text can be up to 160 digits and characters.

Allow you to let a program send a SMS message with a preset text. If blank - the text from the Message ID will occur as the SMS message.

Note: If a message is sent to ALARM or numeric Pager, the number of characters will be less than 160.

Receivers user id
I/O; Char(10)
This field must only be used if the user is created as a permanent user in SMS BlueNote.
Receivers country prefix
I/O; Char(5)
Country code is mandatory for SMS messages for some teleoperators - check with you local teleoperator.

If "Receivers user id" is used - the country prefix will be taken from here.

Receiver’s mobile phone number
I/O; Char(15)
Phone number on the receivers GSM mobile phone. If "Receivers user id" is not used - the system will find the right teleoperator from the phone list connected with the teleoperators.

Delivery form
I/O; Dec(1)
Choose 0 - 3.
0= As in receivers profile.

1= Message is only being sent as an SMS text.
2= Message is being sent both as an SMS text and as an OS/400 message.
3= Message is only being sent as an SMS text, if the user has logged off the system.
Otherwise the message is being sent as an OS/400 message.

Deferred delivery (time stamp)
Input; Char(26)
Is only used if you want to defer delivery of the message.

Message id
I/O; Char(7)
This field returns a message ID if any error should occur..
If "SMS message" is blank - the entered message id text will be sent as a SMS message.

Message file
Output; Char(10)

Message file library
Output; Char(10)

Message data
Output; Char(160)

Check code
Input; Char(1)
Chose 0 - 1
0= Will try to send a message with the full syntax.
1= Will not send a message but will check the contents of parameters to the API and returns errors - if any.
If an error occurs a message id will be returned in "Message id".

Senders user ID
Input; Char(10)
OS/400 user ID - Is used if you want to send a specific user ID along with the message.

Send an alarm message (#SndAlmM) API.

1	Alarm message	Input	Char(160)
2	Receivers user id	I/O	Char(10)
3	Message id	I/O	Char(7)
4	Message file	I/O	Char(10)
5	Message file library	I/O	Char(10
6	Message data	I/O	Char(160)

Send an alarm message (#SNDALMM) allows you to call the receivers alarm telephone number. The alarm can be sent to a mobile phone, an ordinary phone, pagers etc.
Characters that are non-numeric can be omitted. The number called, is the field "Alarm" found in the profile of the "User id".

Send an alarm message (#SndAlmM) allows you to call the receivers alarm telephone number. The alarm can be sent to a mobile phone, an ordinary phone, pagers etc.

Required Parameter Group

Alarm message:
Input; Char(160)
The message is sent to the receivers alarm phone number.
If blank - the text from the Message ID will be sent as the SMS message.
Pagers will only receive numeric characters.

Receivers user id:
I/O; Char(10)
This field is mandatory.

Message id
I/O; Char(7)
This field returns the "Message ID" for any errors.
If "SMS message" is blank - the message id will be sent as a SMS message.

Message file:
I/O; Char(10)

Message file library:
I/O; Char(10

Message data:
I/O; Char(160)

Chapter 7. Work with the Web Client

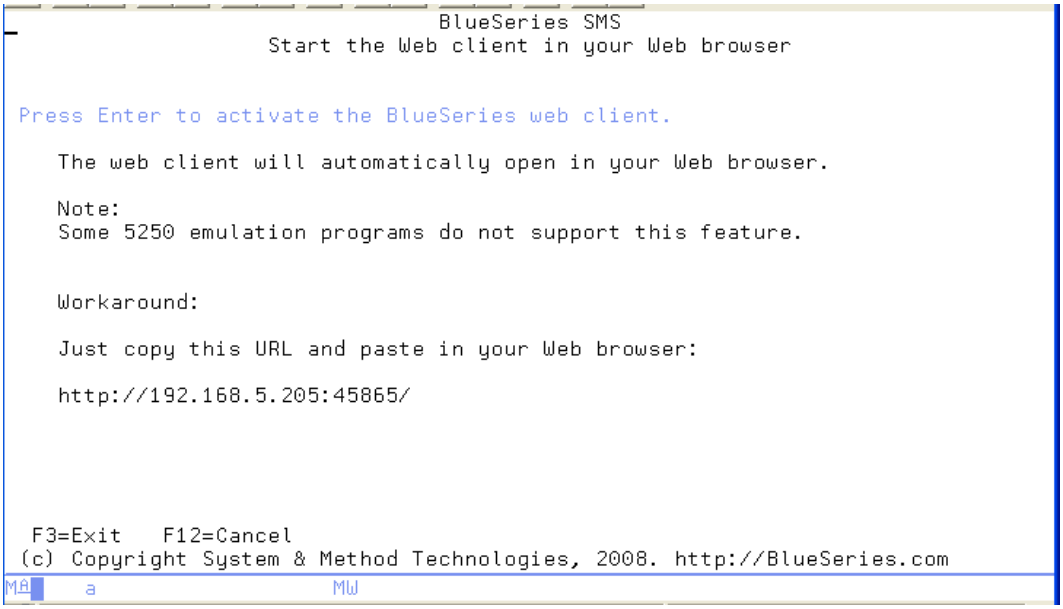
The web client
It applies for the web client, that it is 100 percent online on the iSeries and the features matches the following six options on the SMS BlueNote main menu:

"1. Send a message"
"2. Work with SMS BlueNote messages "
"4. Work with SMS BlueNote user profiles "
"5. Work with group profiles and distributions lists"
“12. Work with teleoperators and phonelists “
“13. Work with rules for incomming SMS”

This chapter describes how to use the client according to the four options above, but the chapter will not describe the details as they are found in the matching chapter elsewhere in this manual.

Activation

Simply press 80. “Start the web client in your web browser”


BlueSeries SMS
Start the Web client in your Web browser
Press Enter to activate the BlueSeries web client.
The web client will automatically open in your Web browser.
Note:
Some 5250 emulation programs do not support this feature.
Workaround:
Just copy this URL and paste in your Web browser:
http://192.168.5.205:45865/
F3=Exit F12=Cancel
(c) Copyright System & Method Technologies, 2008. http://BlueSeries.com

Press Enter.

Save the URL in “Favorites” in your browser.

Note:
Some 5250 emulation programs can not activate the browser. You must in that case copy/paste the ULR from the panel.

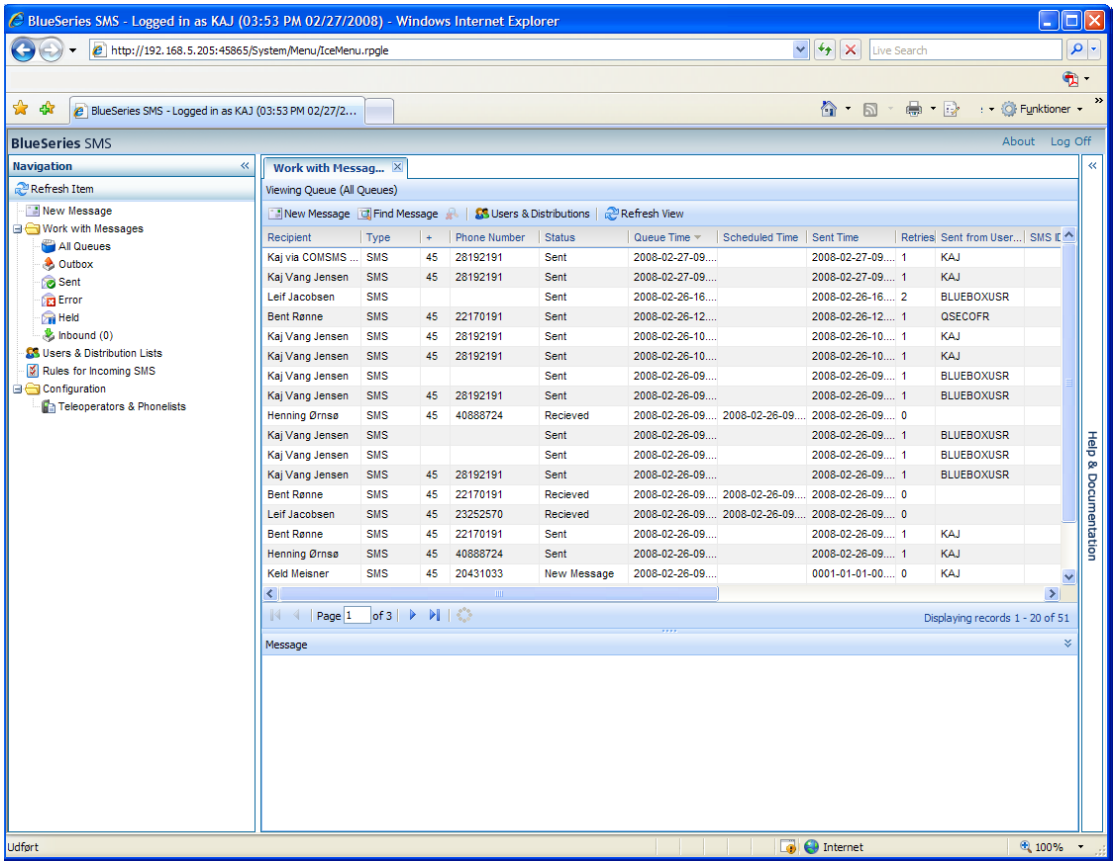
Some systems will not display the IP address of the system. The text in the panel above will then just read: http:// :45856

You can locate the TCP/IP address of your System i by the use of the CFGTCP command. Select option 1

Use you iSeries Login

BlueSeries | Login
Copyright ©2008, System & Method Inc.
Please enter your username and password as assigned. Click the 'login' button.
Username:
Password:
Login

The SMS BlueNote webclient.



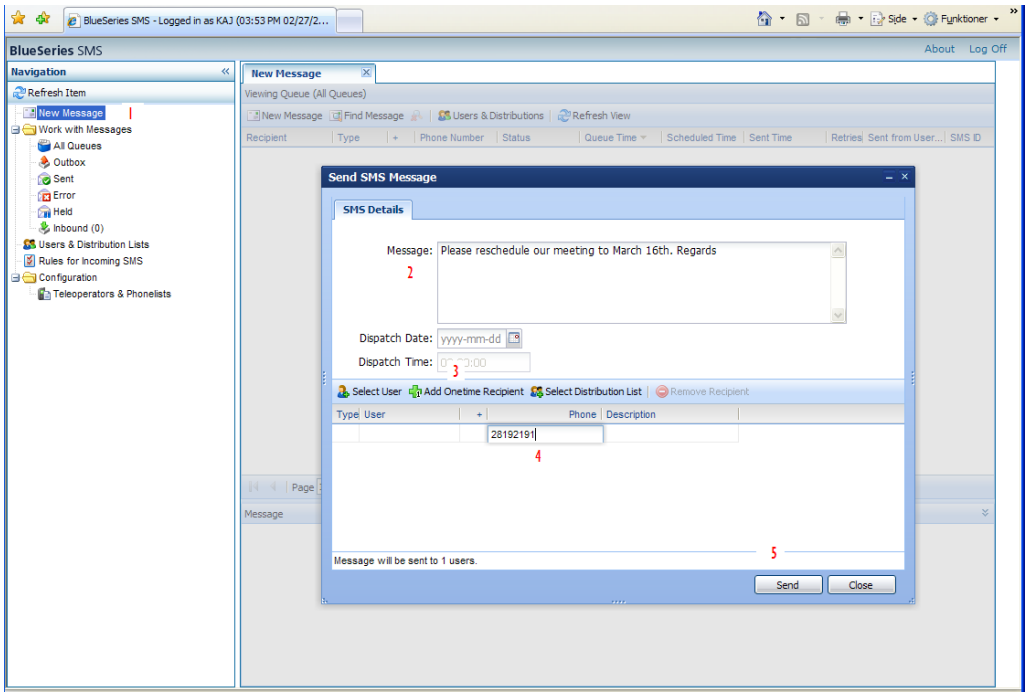
7.1 Send a SMS message

When sending a SMS message you either key the GSM number direct, or select the recipient from the phone book in SMS BlueNote.

7.1.1. Send a SMS using a direct key number.

You can send a message in five simple steps:

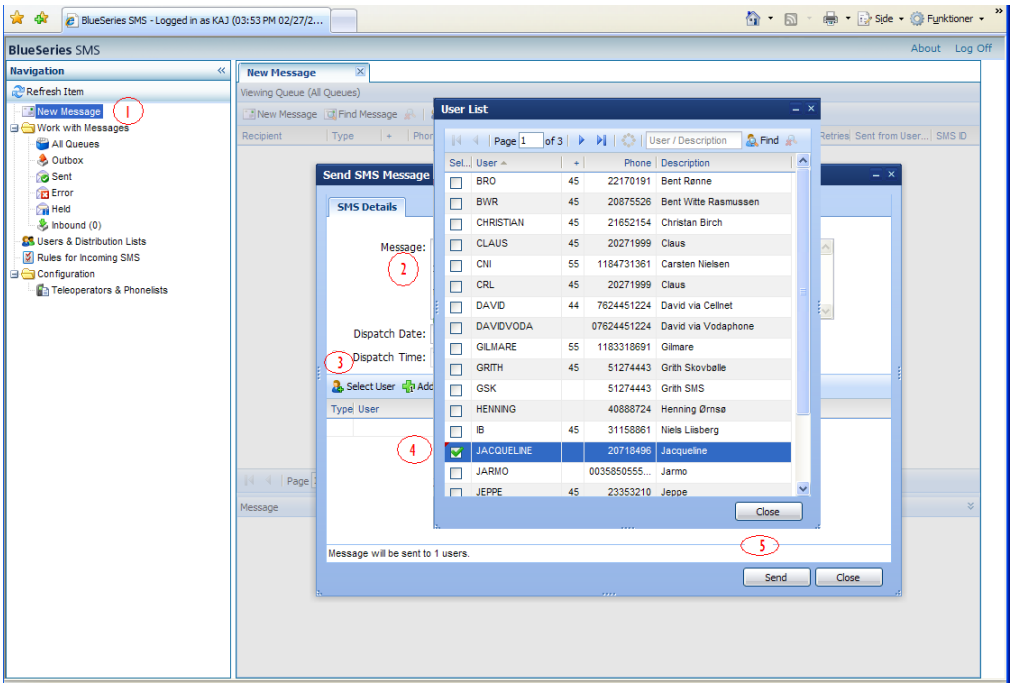
1. Press ‘New Message’
2. Write the message
3. Press Add Ontetime Recipient’
4. Type the number
5. Press ‘Send’



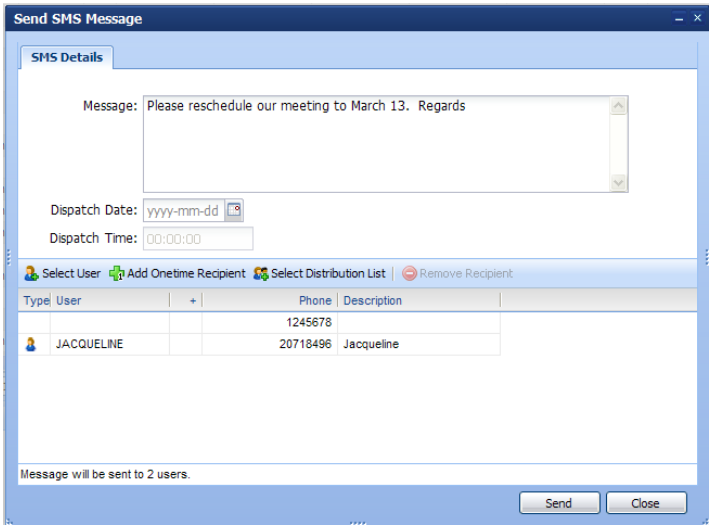
7.1.2. Send a SMS message to a known recipient.

You can send a message in five simple steps:

1. Press ‘New Message’
2. Write the message
3. Press ‘Select User’
4. Select the recipient(s) from the list
5. Press Close and Send.



You can also combine the two methods.

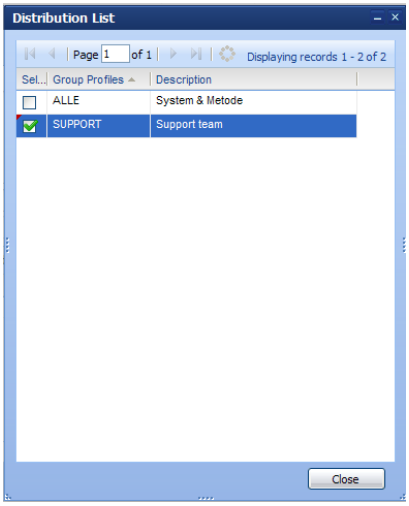


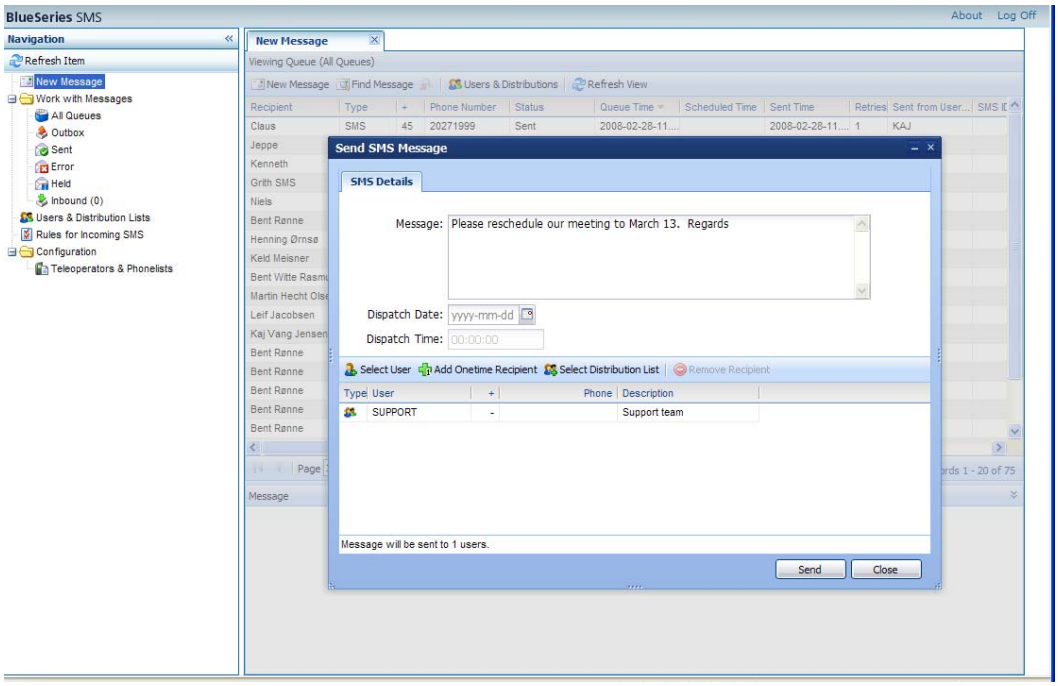
7.1.3. Send a SMS message to a group of recipients.

You can also send you message to a group of recipients.

1. Press ‘New Message’
2. Write the message
3. Press ‘Select Distribution list’
4. Select the recipient(s) from the list
5. Press Close and Send.

.



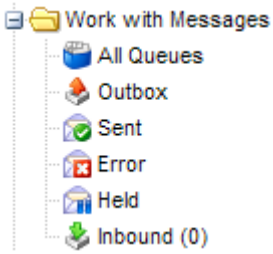


Note. The text “Message will be sent to 1 users” apply for the group.

7.2 Work with messages

The log is organized as follows:

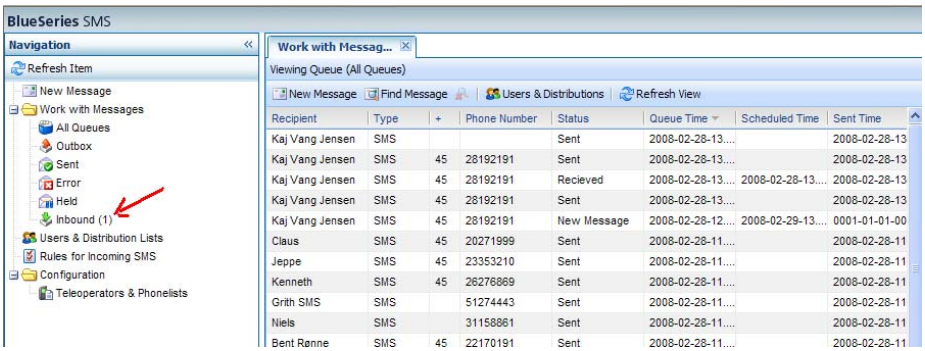
The messages are displayed on six forms: All queues and in detail.



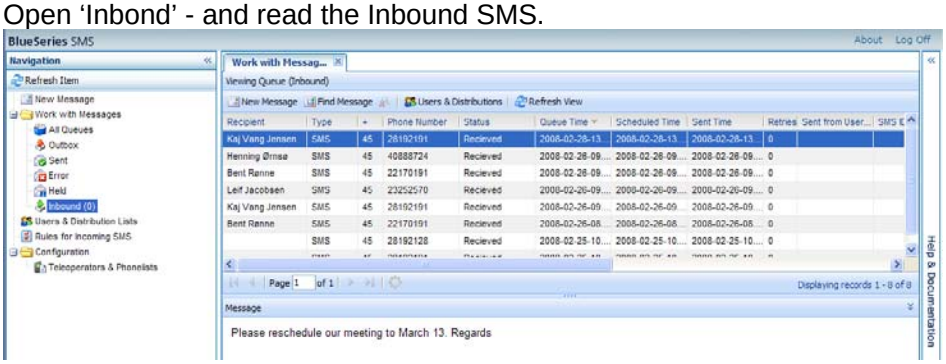
Outbox. The message is in queue on the iSeries.
The message is sent
Error - the message is not sent from the iSeries.
The message is held back for later transmission.
A SMS message is received on the system.

Inbound SMS

You are notified when a SMS arrives.



The number e.g. (1) shows the number of new messages.
Open ‘Inbond’ - and read the Inbound SMS.



The senders name will be displayed, if that person is known (created as a user) in the address book.

A blank field indicates an unknown sender.

7.3 Send SMS from a Excel spreadsheet

BlueNote comes with integration to Microsoft Excel spreadsheet and SMS text messages can sent from a spreadsheet that is uploaded to the web client in BlueNote.

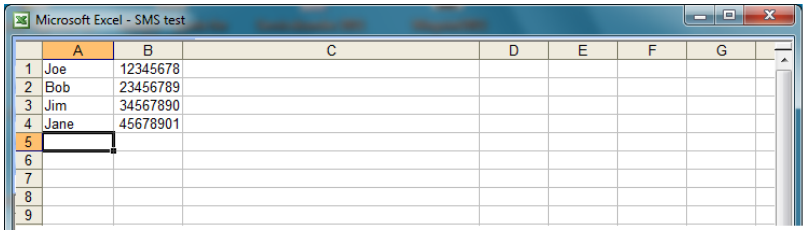
The spreadsheet must be saved in .XML format and the integration is based on the SNDSMSMSG command (See chapter 6). The messages to be sent, can use the same fields in various combinations.

You have the option to send one and the same message to all numbers in the spreadsheet or send different messages depending on the content in the file.

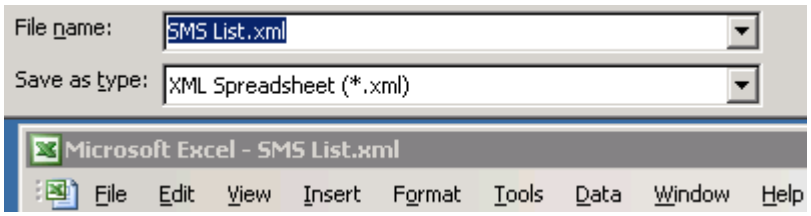
Send general (default) text messages.

The simplest form is a general text message forwarded to a selection of phone numbers in a spreadsheet.

Create a list of the recipents.

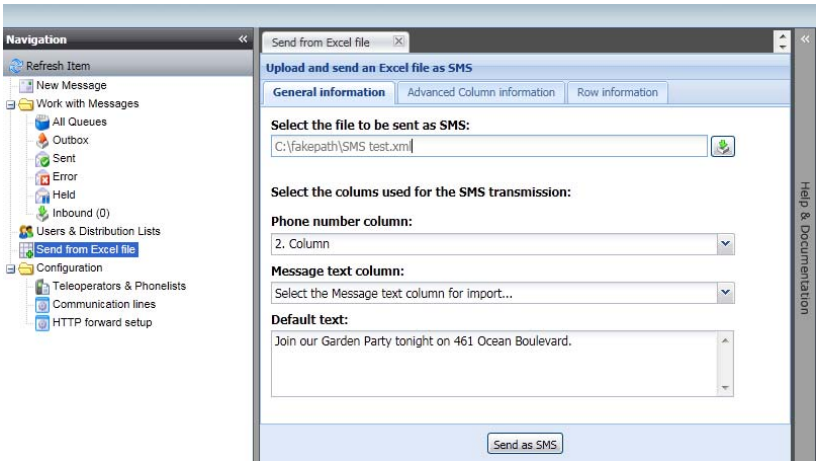


Make sure that the file is saved as a .XML file


File name: SMS List.xml
Save as type: XML Spreadsheet (*.xml)
Microsoft Excel - SMS List.xml
File Edit View Insert Format Tools Data Window Help

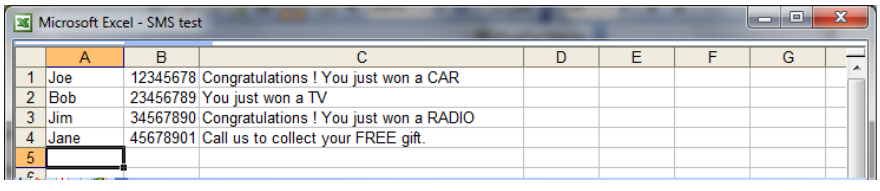
Start the Web client and do as follows:

1. Select ‘Send for Excel file’.
2. Import the XML file
3. Write the message in the ‘Default text field’
4. Select the field; ‘Phone number column’.
5. Select the Column number that matches the column with the phone numbers. B = 2 in this example.
6. Press ‘Send as SMS’



Send individual text messages.

You can add individual text messages in the spreadsheet.


Microsoft Excel - SMS test
A B C D E F G
1 Joe 12345678 Congratulations ! You just won a CAR
2 Bob 23456789 You just won a TV
3 Jim 34567890 Congratulations ! You just won a RADIO
4 Jane 45678901 Call us to collect your FREE gift.
5

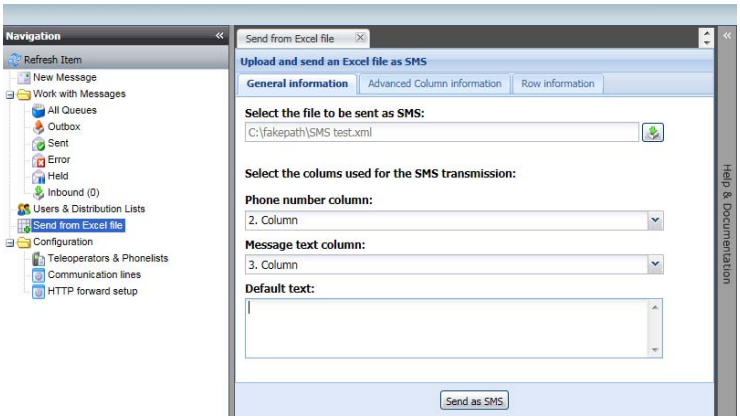
Keep the ‘Default text’ field blank and:

1) Upload the XML file

2) Select the field;
‘Phone number Column’

3) Select the field;
‘Message text Column’

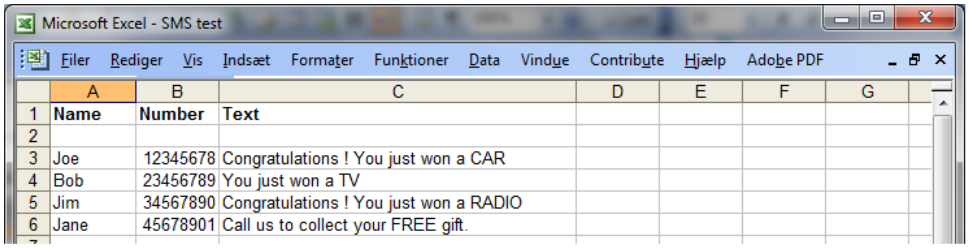
4) Press the “Send as SMS” button.



Please Note: *You can mix ‘Default’ text andiIndividual text. The ‘Default text’ will automacally be used, if there are blank fields in the Message text column used for individual text.*

Send from spreadsheet with Headers

Say you have headers in the spreadsheet. They must of course be omitted from the transmission.

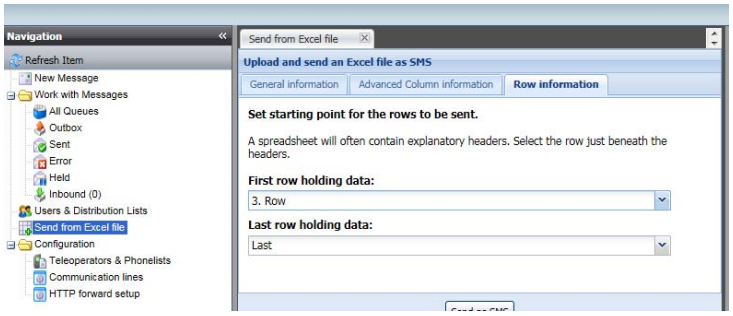


	A	B	C	D	E	F	G
1	Name	Number	Text				
2							
3	Joe	12345678	Congratulations ! You just won a CAR				
4	Bob	23456789	You just won a TV				
5	Jim	34567890	Congratulations ! You just won a RADIO				
6	Jane	45678901	Call us to collect your FREE gift.				

You will go through the steps mentioned above – but you will also use the tab ‘Row information’ to select the start position for the messages (Row 3 in this example).

Last row will default to ‘Last’.

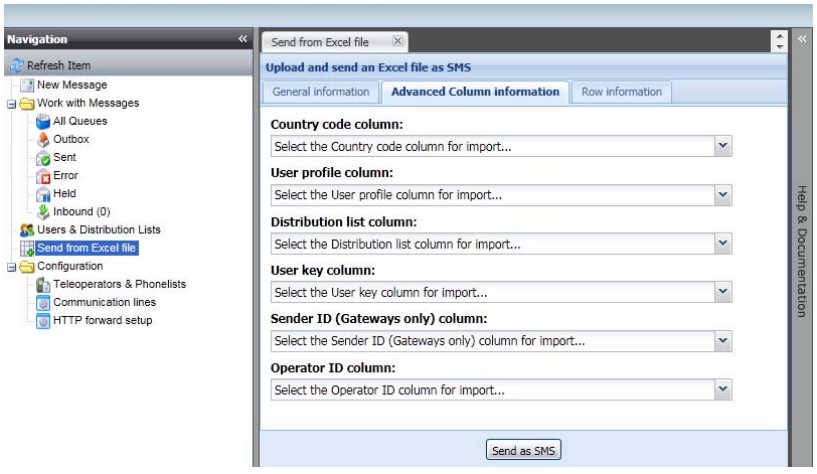
You can also use the tab “Row information” to send to a selection of recipients.



Advanced Column information
Read chapter 6 for the field definitions.

The fields mentined are to be used precisely as in the SNDSMSMSG command.

.



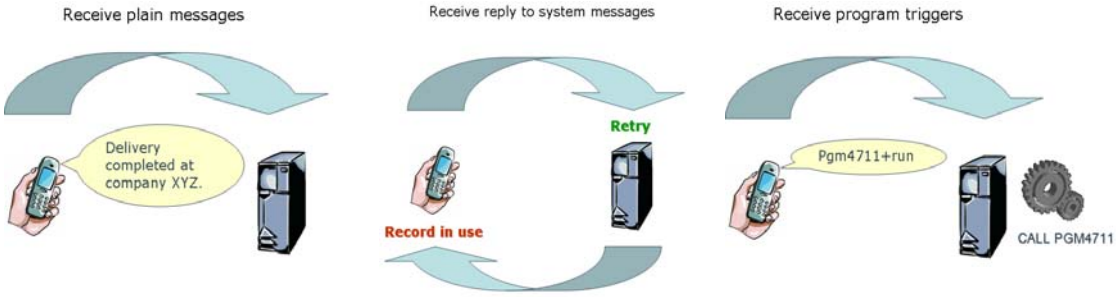
Chapter 8. Work with inbound SMS

The GSM unit makes it possible for SMS BlueNote to handle inbound SMS' in many ways.

It enables the iSeries system operator to send replies to system messages originally sent to him from SMS BlueNote. The technique does also enable the system to send SMS messages that will trigger and/or execute programs on the iSeries.

SMS BlueNote can receive SMS sent from any GSM phone in the world and deliver it to an OS/400 message queue.

Inbound SMS are received via a GSM unit that is connected to the iSeries. The GSM unit uses its own GSM number, and all SMS messages sent to the machine are sent to this number.



Flow for AS/400 system messages, which needs reply.
SMS BlueNote is installed on the iSeries and activates a system message which is sent as SMS, to the system operator on duty.
If this is a message, which needs reply e.g. "C" for "Cancel", the system operator senda this "C" back as SMS to the iSeroes. The SMS message is received on the GMS unit.

The system operator can also send a SMS message direct to the iSeries and trigger a program.

Flow for inbound SMS to OS/400 message queue or mail systems.

SMS BlueNote is installed on AS/400 and you can 1) send a simple SMS message, which is 2), received on the recipients GSM phone. A reply can be 3) sent back to the company where it is received on 4) the GSM unit.

You can define a set of rules for the handling of inbound SMS.

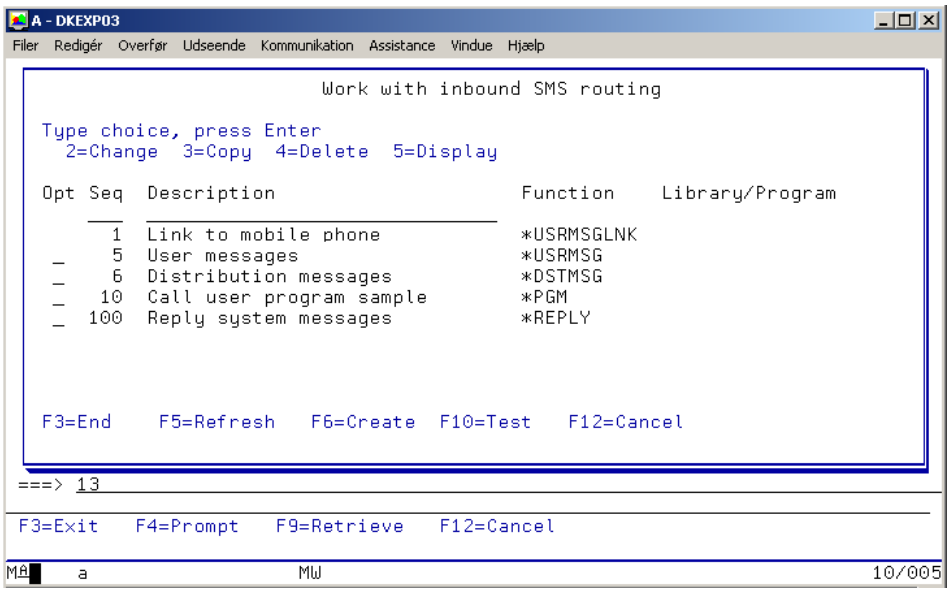
- A SMS can by choice, be sent to any OS/400 user profile by choice
- Replies to SMS messages originating from a user on SMS BlueNote will be returned to that particular user. A default user can work as backup.
- Inbound SMS can be forwarded as email.
- A SMS message can be sent to trigger an event on a third party application.

8.1 Work with rules:

Before you start receiving SMS messages on the AS/400 you must set up a set of rules. This is to ensure that the SMS messages are routed to the right message queue, and that replies for a system message only are given once.

There is an option 13 "Work With Inbound Rules" where you can set up the rules for the different SMS message types sent to the AS/400.

You can create you own set of rules but you can for starters use these:


A - DKEXP03
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Work with inbound SMS routing
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
Opt Seq Description Function Library/Program
1 Link to mobile phone *USRMSGLNK
5 User messages *USRMSG
6 Distribution messages *DSTMSG
10 Call user program sample *PGM
100 Reply system messages *REPLY
F3=End F5=Refresh F6=Create F10=Test F12=Cancel
===> 13
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
MA a MW 10/005

User message Link ***USRMSGLNK**
A Link is created between a SMS BlueNote user and the phone number of the recipient's mobile phone. Any SMS that is sent from this particular mobile phone will be routed direct to the OS/400 message queue of the SMS BlueNote user.

The User Message Link will change once a SMS is sent from another SMS BlueNote user profile.

The User Message Link will also implement a Default who will receive all inbound SMS messages that is sent from "unlisted" mobile phones.

User message ***USRMSG**
A SMS message is sent direct to a user profile (message queue) on the AS/400.

Distribution message ***DSTMSG**
The SMS message is sent to SNADS network distribution (OV/400) recipients on the AS/400.

Call user program ***PGM**
You can send a SMS message that activates an AS/400 program.

Reply system message ***REPLY**
You can from you GSM phone reply on system messages originally sent to you from your iSeries or AS/400.

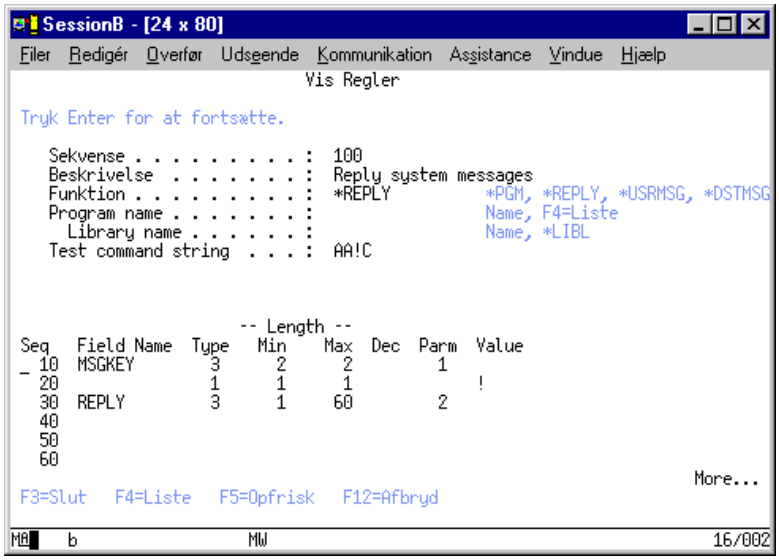
8.2 Send a SMS Reply for a System message.

You can use this method to answer on system messages sent to your iSeries.

The first message that is sent from the iSeries via SMS BlueNote, will have the prefix AA? . The next will be named AB?, AC? and so forth, until your reach the combination ZZ? . The system will then start all over with AA?

Note - All system messages sent from iSeries via SMS BlueNote, and which requires an answer - will include a question mark (?) as the third character.

We recommend that you define a rule, where you reply the system messages with an exclamation mark (!). :


SessionB - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Vis Regler
Tryk Enter for at fortsætte.
Sekvense . . . . . : 100
Beskrivelse . . . . . : Reply system messages
Funktion . . . . . : *REPLY *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . : Name, F4=Liste
Library name . . . . . : Name, *LIBL
Test command string . . . : AA!C
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 MSGKEY 3 2 2 1
20 1 1 1 !
30 REPLY 3 1 60 2
40
50
60
More...
F3=Slut F4=Liste F5=Opfrisk F12=Afbryd
MA b MW 16/002

Example:
You want to reply a system message with the prefix AA? with the reply "C" for "Cancel".

Select the option "Reply message" on your GSM phone.
Write the reply:

Start the message with the prefix:	AA!
Followed by:	C
Your GSM display reads:	AA!C

Send the message from you GSM phone.

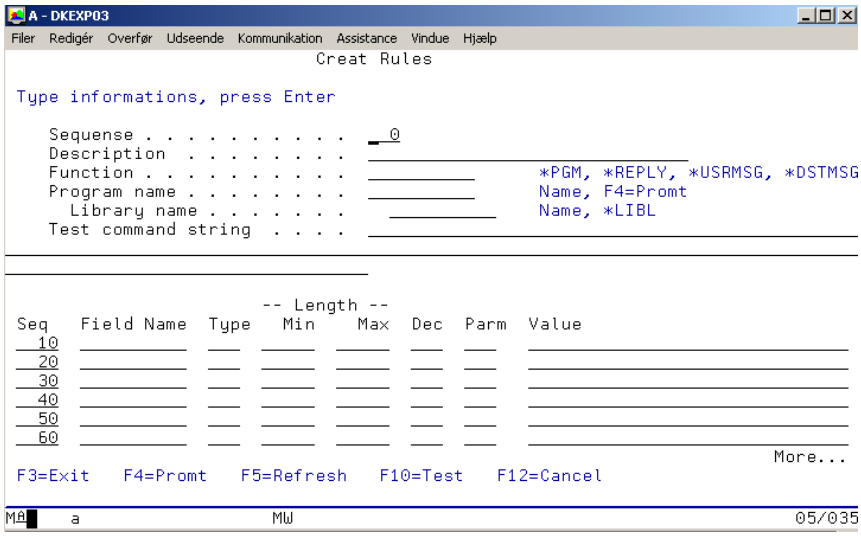
Note - This is pr. profile. If both Smith and Jones are scheduled on the duty plan when monitoring the iSeries - they will each get AA? the first message which needs reply.
Remember - It is still the priority system in SMS BlueNote, which have got the "last say". If a message need reply is in itself not reason enough, for it to be sent from the iSeries

We have enclosed a small test program that divides by zero: Severity 99

SBMJOB CMD(CALL PGM(SMS/SMS997))

8.3 Create rules

You can create you own rules for incoming SMS. Press F6 Create. It brings you to the following panel:


A - DKEXP03
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Creat Rules
Type informations, press Enter
Sequense 0
Description . . . . . .
Function . . . . . *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . Name, F4=Promt
Library name . . . . . Name, *LIBL
Test command string . . . .
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10
20
30
40
50
60
More...
F3=Exit F4=Promt F5=Refresh F10=Test F12=Cancel
MA a MW 05/035

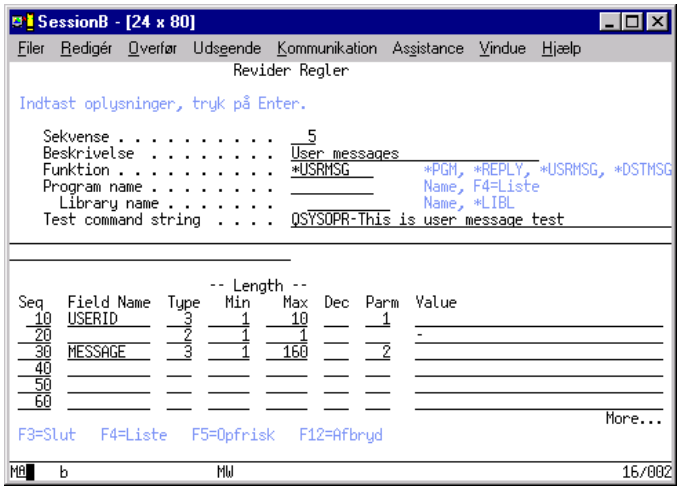
Example 1: User Message
Create rules to send a SMS message to a given user profile on AS/400.

We will in this example show how you can send a SMS message to a user profile on AS/400. The SMS message "enters the AS/400" via one GSM number shared by all user profiles, so you must set up a rule to route the message further in the system.

A person, who wants to send a SMS message from his GSM phone to the AS/400, must in this example write the following:

1) The name of the user profile
2) Followed by - (dash)
3) Followed by the message text.

You can use "Test command string" to simulate the text, you write on the display on the GSM phone. This example shows a text message sent as SMS to the QSYSOPR.


SessionB - [24 x 80]
Filer Redigér Overfør Udsgende Kommunikation Assistance Vindue Hjælp
Revider Regler
Indtast oplysninger, tryk på Enter.
Sekvense 5
Beskrivelse . . . . . User messages
Funktion . . . . . *USRMSG *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . Name, F4=Liste
Library name . . . . . Name, *LIBL
Test command string . . . . QSYSOPR-This is user message test
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 USERID 3 1 10 1
20 2 1 1 -
30 MESSAGE 3 1 160 2
40
50
60
More...
F3=Slut F4=Liste F5=Opfrisk F12=Afbryd
MA b MW 16/002

Write the text e.g.: QSYSOPR-This is a user message test

Press F10 to validate the rule. The text "Test completed, match found and executed at sequence number 001." must appear.

You will be rejected if the rule is wrongly defined, and you does thus not need to us e telephone time to test the rules you defines/invents.

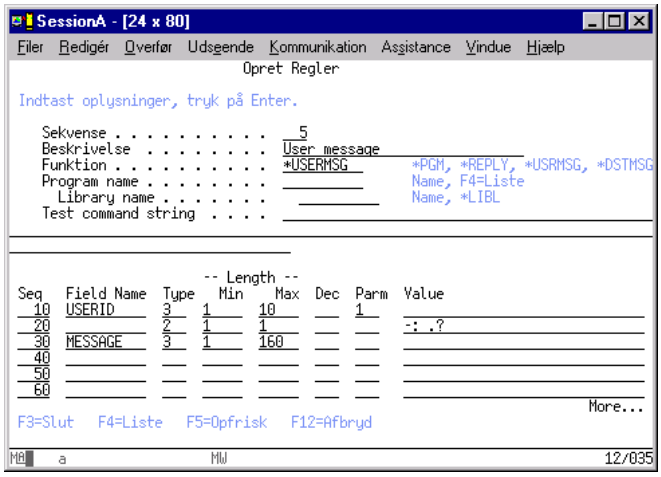
Note - We have in the example chosen a dash (-) because it is very illustrative!. (See column "Value", Seq 20.)
You might in the daily routine find that the character for "space" is better to find and use on most GSM keyboards and you would subsequently had indicated a "space" under "Value"

Example:
You want to send a message to the OS400 user profile JOHN, warning you are late for a meeting. Activate the write message function on you GSM phone and simply write:

JOHN I am 2 hours late. Send the SMS message.

JOHN will in his message queue read the inbound message "I am 2 hours late."

You can also add a selection of characters under "Value" so you have choice between the characters which activates the main message e.g.: -: .? (dash, colon, space, period and question mark).


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Opret Regler
Indtast oplysninger, tryk på Enter.
Sekvense 5
Beskrivelse . . . . . User message
Funktion . . . . . *USERMSG *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . Name, F4=Liste
Library name . . . . . Name, *LIBL
Test command string . . . .
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 USERID 3 1 10 1
20 2 1 1 -: .?
30 MESSAGE 3 1 160
40
50
60
More...
F3=Slut F4=Liste F5=Opfrisk F12=Afbryd
MA a MW 12/035

This opens for the following type of SMS message:

JOHN I am 2 hours late. JOHN-I am 2 hours late.
JOHN:I am 2 hours late. JOHN.I am 2 hours late.
JOHN?I am 2 hours late.

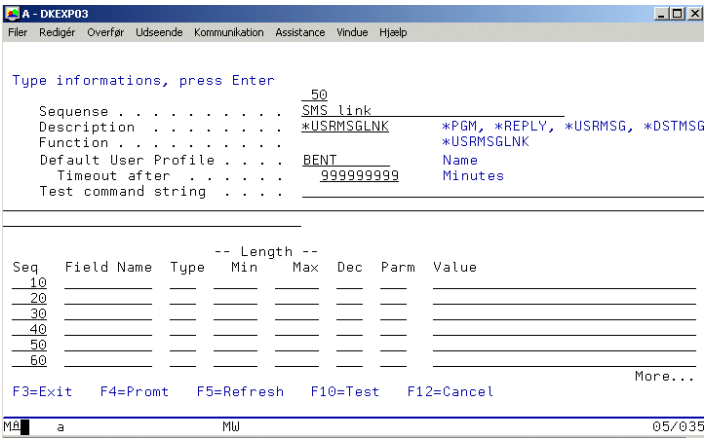
PLEASE NOTE. It is not advisable to use blanks if you use *USRMSGLNK. There can be a conflict if you are using space and “User Message Link” is active.

Example: You have an OS/400 user profile named JOE, and the name “Joe” is mentioned first in a SMS that is sent as a reply to another person on SMS BlueNote. This SMS will be routed to “Joe” if you are using blanks.

The SMS can break as a normal OS/400 message on the “green screen”. The “SMS WEB Client” will also notify the user (e.g. John) that he has received a SMS.

User message link

A Link is created between a SMS BlueNote user and the phone number of the recipient's mobile phone. Any SMS that is sent from this particular mobile phone will be routed direct to the OS/400 message queue of the SMS BlueNote user.


A - DKEXP03
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Type informations, press Enter
50
Sequense . . . . . SMS link
Description . . . . . *USRMSGLNK *PGM, *REPLY, *USRMSG, *DSTMSG
Function . . . . . *USRMSGLNK
Default User Profile . . . . BENT Name
Timeout after . . . . . 999999999 Minutes
Test command string . . . .
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10
20
30
40
50
60
More...
F3=Exit F4=Promt F5=Refresh F10=Test F12=Cancel
MA a MW 05/035

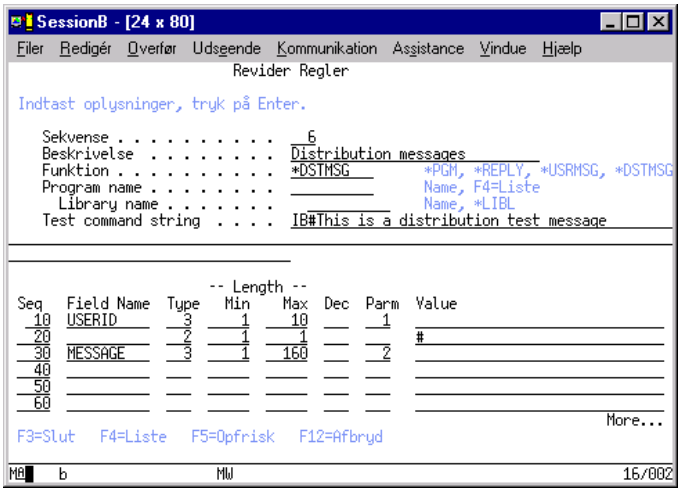
The User Message Link will change once a SMS is sent from another SMS BlueNote user profile.

The Link can be deactivated with a "Timeout" value. It will cause the inbound SMS message to be routed to a "Default User Profile" after X minutes regardless of the origination sender. 999999999 will keep the active Link indefinite.

The Default User Profile will regardless receive all inbound SMS messages that are sent from "unlisted" mobile phones.

Distribution message

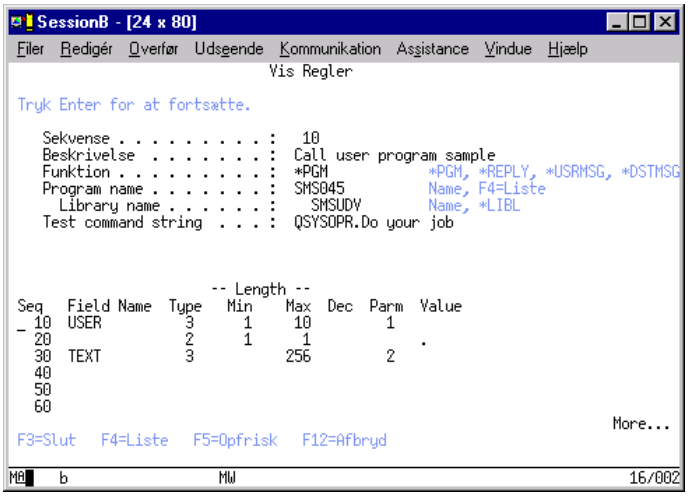
The SMS message is sent to SNADS network distribution (OV/400) recipients on AS/400.


SessionB - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Revider Regler
Indtast oplysninger, tryk på Enter.
Sekvense 6
Beskrivelse . . . . . Distribution messages
Funktion . . . . . *DSTMSG *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . Name, F4=Liste
Library name . . . . . Name, *LIBL
Test command string . . . . IB#This is a distribution test message
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 USERID 3 1 10 1
20 2 1 1 #
30 MESSAGE 3 1 160 2
40
50
60
More...
F3=Slut F4=Liste F5=Opfrisk F12=Afbryd
MA b MW 16/002

Call user program sample.

The API program can be written in any language. This example uses OPM CL.
The first parameter being passed to Your API program (parameter 0) is always the originator phone number. i.e. the phone sending the message.

The following parameters are given by the "rules" option 13 in the main menu.


SessionB - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Vis Regler
Tryk Enter for at fortsætte.
Sekvense . . . . . : 10
Beskrivelse . . . . . : Call user program sample
Funktion . . . . . : *PGM *PGM, *REPLY, *USRMSG, *DSTMSG
Program name . . . . . : SMS045 Name, F4=Liste
Library name . . . . . : SMSUDV Name, *LIBL
Test command string . . . : QSYSOPR.Do your job
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 USER 3 1 10 1
20 2 1 1 .
30 TEXT 3 256 2
40
50
60
More...
F3=Slut F4=Liste F5=Opfrisk F12=Afbryd
MA b MW 16/002

8.4 Program Examples

8.4.1 Call an inbound Message API

Here we use sequence 10 to call an inbound messages API. In this case program SMS045 in library SMSUDV which purpose is the send a message to a user message queue. e.g.: QSYSOPR.Do your job

Is sending a message to user profile QSYSOPR with the text "Do your job" delimited by an "."

```
                Work with inbound SMS Routing

   Type choice, press Enter
     2=Change  3=Copy  4=Delete  5=Display

   Opt Seq  Description                    Function    Library/Program

         5  User messages                  *USRMSG
         6  Distribution messages          *DSTMSG
        10  Call user program sample       *PGM        SMSUDV/SMS045
       100  Reply system messages          *REPLY
       100  Bypass Mobiltekst              *PGM        SMS/CURTS


                                                                    Bottom
   F3=End    F5=Refresh   F6=Create  F10=Test   F12=Cancel
   (c) Copyright Agent Data ApS, Denmark 1995 - 2000. All rights reserved.

 ===> 13
```

The inbound rule is described as follows:

```
                          Change  Rules

 Type informations, press Enter

    Sequense . . . . . .  10
    Description  . . . . . .  Call user program sample
    Function . . . . . .  *PGM
*PGM, *REPLY, *USRMSG, *DSTMSG
    Program name . . . . . .  SMS045          Name, F4=Promt
      Library name . . . . . .    SMSUDV        Name, *LIBL
    Test command string  . . . .  QSYSOPR.Do your job



                       -- Length --
 Seq   Field Name  Type   Min    Max  Dec  Parm  Value
   10  USER          3      1     10         1
   20                2      1      1              .
   30  TEXT          3           256         2
   40
   50
   60
                                                                    More...
 F3=Exit   F4=Promt   F5=Refresh   F10=Test
F12=Cancel
```

The resulting parameter list is:

Parm 0 , The Origin user profile	Char 32
Parm 1 , an user profile id	Char 10
Parm 2 , The text	Char 256

8.4.2 Execute a Command via inbound SMS

The purpose is to send a command string to iSeries in a format that makes it possible to execute commands on the iSeries.

The string must consist of:
1. *CMD, to tell SMS BlueNote what inbound rule to use.
2. A user that must be validated:
    a. Does the user exist on OS/400 (WRKUSRPRF) ?
    b. Is the User on Duty (Active in option 8, Work with Duty Scheduling) ?
    c. Is the inbound GSM number identical with the number on the user profile
3. A text string indicating the command to be executed .

Example: *CMD PMH PWRDWN

This is done with a CLP program that looks like this:

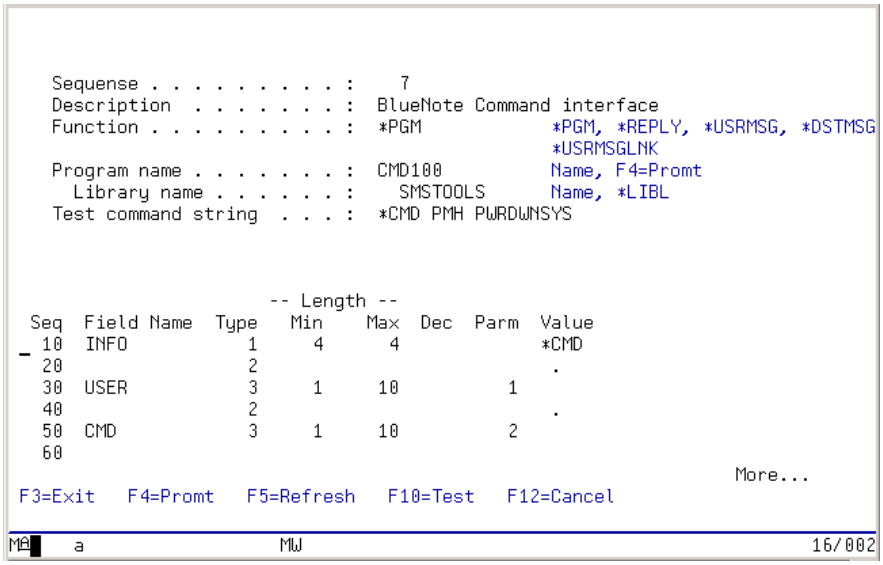
```
             PGM        PARM(&PHONE &USER &CMND)
/* ------------------------------------------------------------ */
/* Company . . . : System & Metode ApS                          */
/* Design  . . . : Per Helmark                                  */
/* Function  . . : User exit for inbound SMS Command execute    */
/* ------------------------------------------------------------ */
             DCL        VAR(&PHONE) TYPE(*CHAR) LEN(18)
             DCL        VAR(&USER) TYPE(*CHAR) LEN(10)
             DCL        VAR(&CMND) TYPE(*CHAR) LEN(10)
             DCL        VAR(&USROK) TYPE(*CHAR) LEN(1)


/* Does user exist                                              */
             CHKOBJ     OBJ(&USER) OBJTYPE(*USRPRF)
             MONMSG     MSGID(CPF9801) EXEC(RETURN)

/* Does user have right to execute                              */
             CALL       PGM(SMSTOOLS/CMD101) PARM(&PHONE &USER &USROK)
             IF         COND(&USROK = 'N') THEN(RETURN)

             SNDPGMMSG  MSG(&CMND) TOMSGQ(PMH)

             ENDPGM
```

And a RPG program that looks like this :

```
FUSR01   IF  E           K        DISK
 * ----------------------------
C           *ENTRY    PLIST
C                     PARM           PHONE  18
C                     PARM           USERPR 10
C                     PARM           USROK   1
 *
 * Keys
 * ----
C           USR01K    KLIST
C                     KFLD           USRPRF           KeyFelt fra
 * ------------------------------------------------------------ *
C                     MOVELUSERPR    USRPRF
      * ------------------------------------------------------------ *
     C           USRPRF    SETLLUSR01                    80
<----C           *IN80     IFEQ *OFF
|    C                     MOVE 'N'       USROK
|    C                     MOVE '1'       *INLR
|    C                     RETRN
```

```
+----C                      ELSE
|    C            USRPRF    READEUSR01                      80
|<---C            *IN80     IFEQ *OFF
||   C            USDUTY    ANDEQ1
||   C            '+'       CAT  USMPFX:0  PHONST 18
||   C            PHONST    CAT  USMTLF:0  PHONST
||<--C            PHONE     IFEQ PHONST
|||  C                      MOVE 'Y'       USROK
||+--C                      ELSE
|||  C                      MOVE 'N'       USROK
||>--C                      ENDIF
|    C                      MOVE '1'       *INLR
     C                      RETRN
|+---C                      ELSE
||   C                      MOVE 'N'       USROK
|>---C                      ENDIF
|    C                      MOVE '1'       *INLR
|    C                      RETRN
>----C                      ENDIF
```

Create a rule for inbound SMS


Sequense . . . . . : 7
Description . . . . . : BlueNote Command interface
Function . . . . . : *PGM *PGM, *REPLY, *USRMSG, *DSTMSG
*USRMSGLNK
Program name . . . . . : CMD100 Name, F4=Promt
Library name . . . . . : SMSTOOLS Name, *LIBL
Test command string . . . : *CMD PMH PWRDWNSYS
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 INFO 1 4 4 *CMD
20 2 .
30 USER 3 1 10 1
40 2 .
50 CMD 3 1 10 2
60
More...
F3=Exit F4=Promt F5=Refresh F10=Test F12=Cancel
MA a MW 16/002

The idea is to use the last 10 characters to indicate what command that must be executed. It should replaced SNDPGMMSG in the CL program.

Example:

```
IF          COND(&CMND = 'PWRDWN') THEN(PWRDWNSYS OPTION(*IMMED)
RESTART(*YES))
```

And so forth.

8.4.3 Inbound SMS with a fixed text

The GSM market holds a variety of alarms and measuring instruments with a built in GSM unit.
These units can send a SMS with a text e.g.: “Temperature to high in room A”.
This alarm can be transmitted to the *SYSOPR queue and thus let the particular unit be monitored by the duty staff.

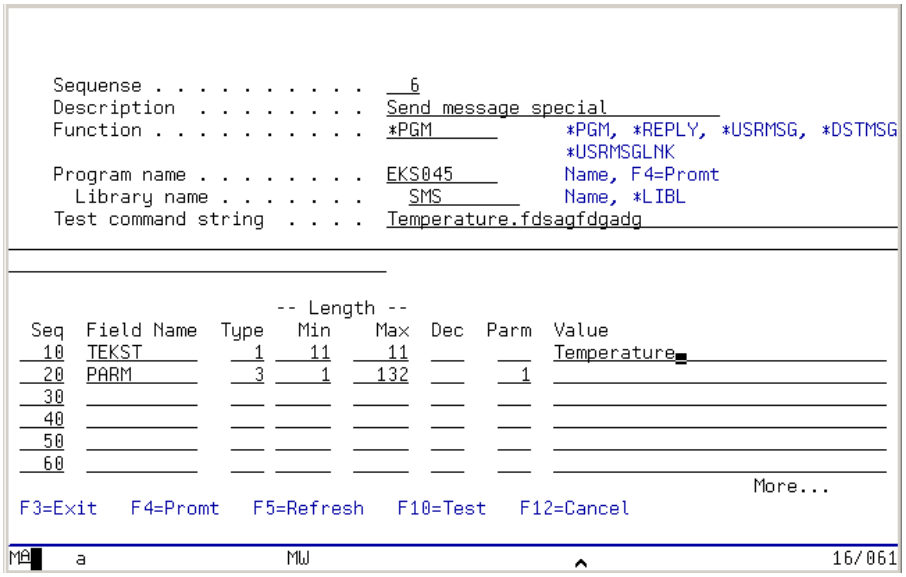
The example shows how an inbound SMS containing the word “Temperature” as first word are fetched and routed to the *SYSOPR queue.

’Temperature….’

Create a CLP program that looks like this:

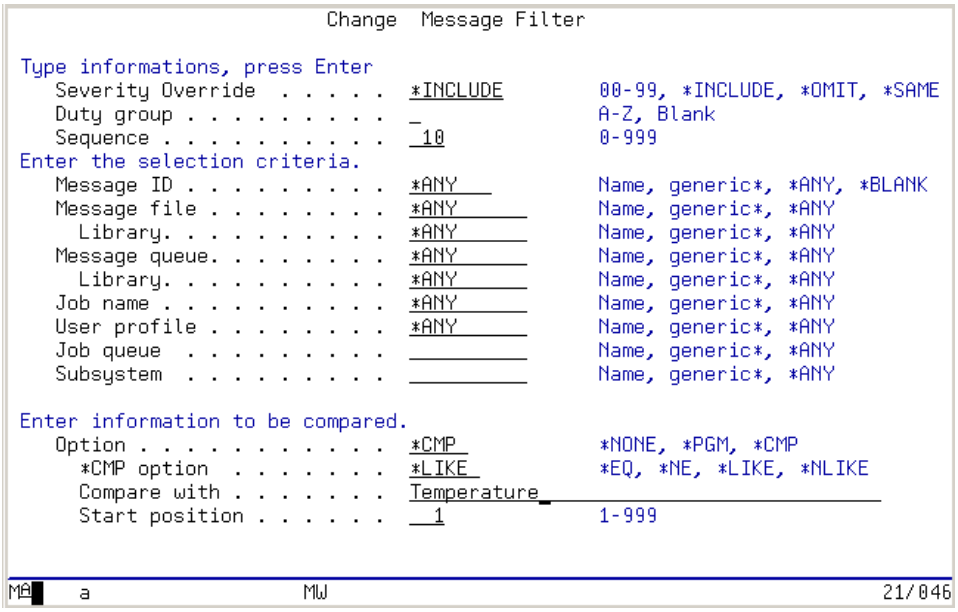
```
             PGM        PARM(&PHONE &MESSAGE)
/* ------------------------------------------------------------ */
/* Firma . . . . : System & Metode ApS                          */
/* Design  . . . : Per Helmark                                  */
/* Function  . . : User exit for inbound SMS Temperature        */
/* ------------------------------------------------------------ */
             DCL        VAR(&MESSAGE) TYPE(*CHAR) LEN(132)
             DCL        VAR(&PHONE) TYPE(*CHAR) LEN(10)

             SNDPGMMSG  MSG('Temperature is to high in room A’) +

                          TOMSGQ(*SYSOPR)

             ENDPGM
```

Program name and library is optional except for “SMS”. Compile the program.
Create a rule using option 13. Work with rules for incomming SMS


Sequense 6
Description . . . . . Send message special
Function . . . . . *PGM *PGM, *REPLY, *USRMSG, *DSTMSG
*USRMSGLNK
Program name . . . . . EKS045 Name, F4=Promt
Library name . . . . . SMS Name, *LIBL
Test command string . . . . Temperature.fdsagfdgadg
-- Length --
Seq Field Name Type Min Max Dec Parm Value
10 TEKST 1 11 11 Temperature
20 PARM 3 1 132 1
30
40
50
60
More...
F3=Exit F4=Promt F5=Refresh F10=Test F12=Cancel
MA a MW 16/061

Go to option 10. “Work with Message Severity Overrides” and create a rule for including the message in the duty plan.

.

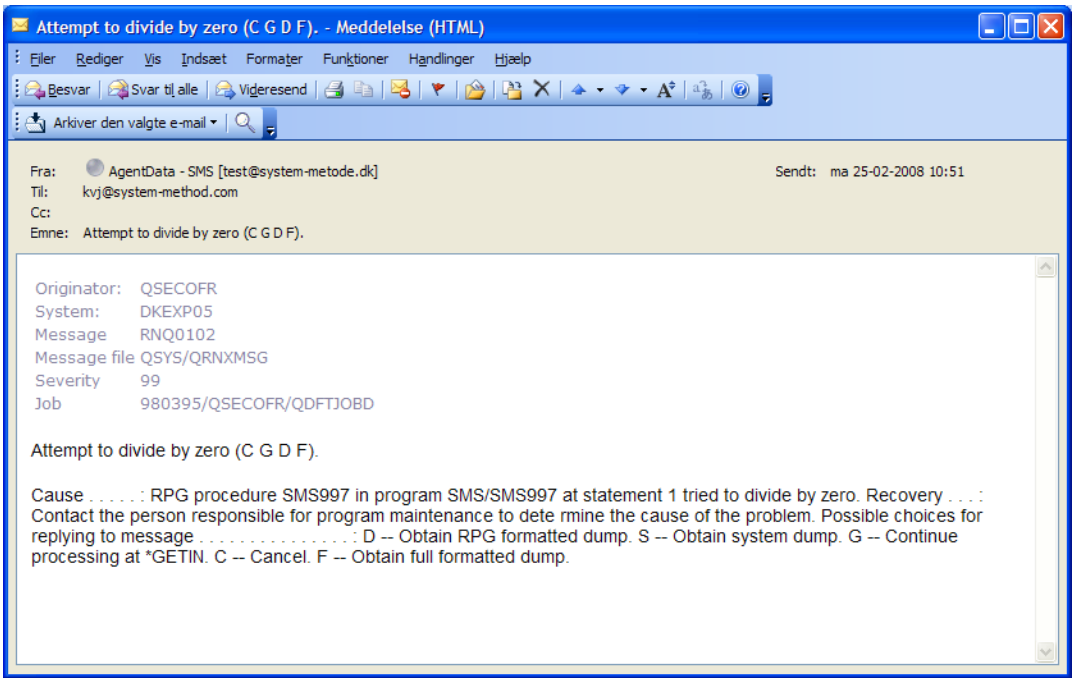

Change Message Filter
Type informations, press Enter
Severity Override . . . . . *INCLUDE 00-99, *INCLUDE, *OMIT, *SAME
Duty group . . . . . _ A-Z, Blank
Sequence 10 0-999
Enter the selection criteria.
Message ID . . . . . *ANY Name, generic*, *ANY, *BLANK
Message file . . . . . *ANY Name, generic*, *ANY
Library. . . . . *ANY Name, generic*, *ANY
Message queue. . . . . *ANY Name, generic*, *ANY
Library. . . . . *ANY Name, generic*, *ANY
Job name . . . . . *ANY Name, generic*, *ANY
User profile . . . . . *ANY Name, generic*, *ANY
Job queue . . . . . Name, generic*, *ANY
Subsystem . . . . . Name, generic*, *ANY
Enter information to be compared.
Option . . . . . *CMP *NONE, *PGM, *CMP
*CMP option . . . . . *LIKE *EQ, *NE, *LIKE, *NLIKE
Compare with . . . . . Temperature
Start position 1 1-999
MA a MW 21/046

Chapter 9. Activate the SMSemail module

SMS BlueNote has a built in email module giving you two features:

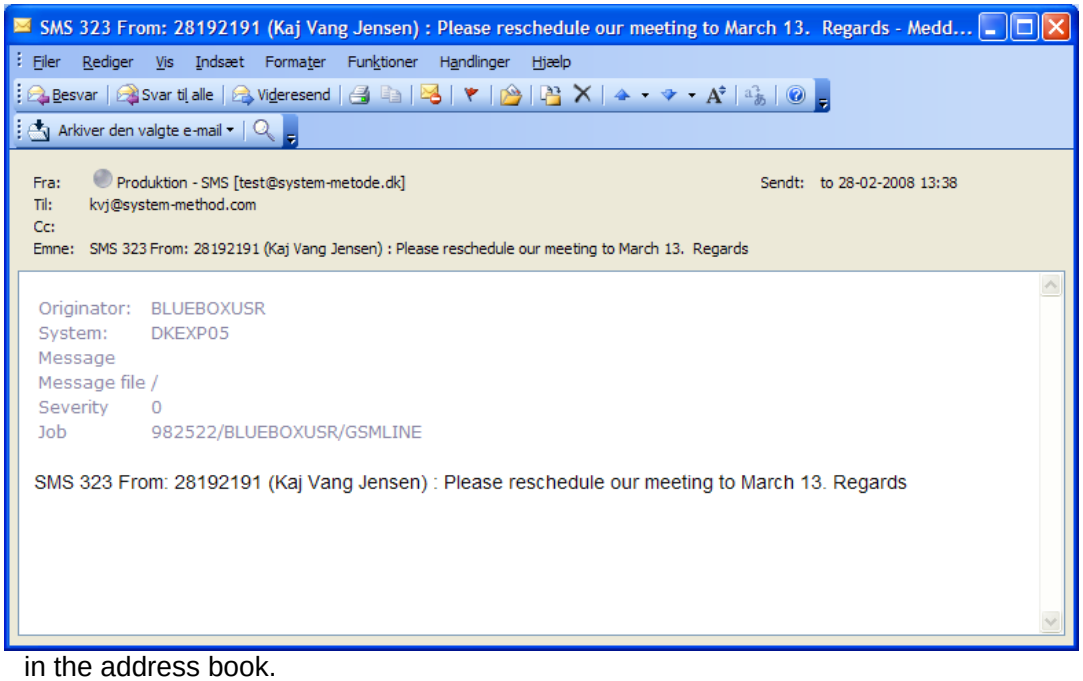
1) The system message can be sent to an e-mail address. (There is no reply option.)
2) Inbound SMS can be forwarded as an email.

Example 1: A system message.


Attempt to divide by zero (C G D F). - Meddelelse (HTML)
Filer Rediger Vis Indsæt Formater Funktioner Handlinger Hjælp
Besvar Svar til alle Videresend
Arkiver den valgte e-mail
Fra: AgentData - SMS [test@system-metode.dk]
Sendt: ma 25-02-2008 10:51
Til: kvj@system-method.com
Cc:
Emne: Attempt to divide by zero (C G D F).
Originator: QSECOFR
System: DKEXP05
Message RNQ0102
Message file QSYS/QRNXMSG
Severity 99
Job 980395/QSECOFR/QDFTJOBD
Attempt to divide by zero (C G D F).
Cause . . . . . : RPG procedure SMS997 in program SMS/SMS997 at statement 1 tried to divide by zero. Recovery . . . : Contact the person responsible for program maintenance to dete rmine the cause of the problem. Possible choices for replying to message . . . . . : D -- Obtain RPG formatted dump. S -- Obtain system dump. G -- Continue processing at *GETIN. C -- Cancel. F -- Obtain full formatted dump.

Example 2: An inbound SMS.

The senders name will be displayed, if that person is known (created as a user)


SMS 323 From: 28192191 (Kaj Vang Jensen) : Please reschedule our meeting to March 13. Regards - Medd...
Filer Rediger Vis Indsæt Formater Funktioner Handlinger Hjælp
Besvar Svar til alle Videresend
Arkiver den valgte e-mail
Fra: Produktion - SMS [test@system-metode.dk]
Sendt: to 28-02-2008 13:38
Til: kvj@system-method.com
Cc:
Emne: SMS 323 From: 28192191 (Kaj Vang Jensen) : Please reschedule our meeting to March 13. Regards
Originator: BLUEBOXUSR
System: DKEXP05
Message
Message file /
Severity 0
Job 982522/BLUEBOXUSR/GSMLINE
SMS 323 From: 28192191 (Kaj Vang Jensen) : Please reschedule our meeting to March 13. Regards

in the address book.
A blank ( ) field indicates an unknown sender.

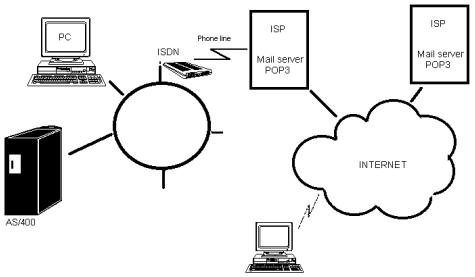
System requirements to the SMSEmail module:

a.) SMS BlueNote is installed and active.
b.) TCP/IP is installed and active on your iSeries.
c.) You have already access to an Internet Service Provider (ISP) and can connect to a mail server (SMTP server).
d.) You must know the IP-address of your SMTP mail server.

PLEASE NOTE:
The SMSemail configuration cannot proceed unless the 4 options above are in order!

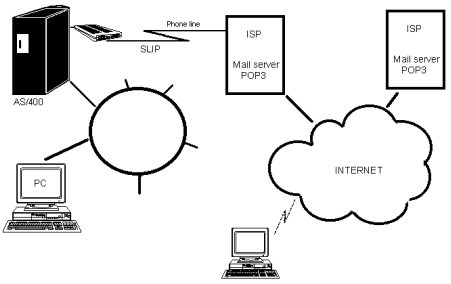
9.1 SMSemail configuration.

SMSEmail requires that you have access to a mail server (SMTP server). You will normally connect SMSEmail via an Internet Service Provider.



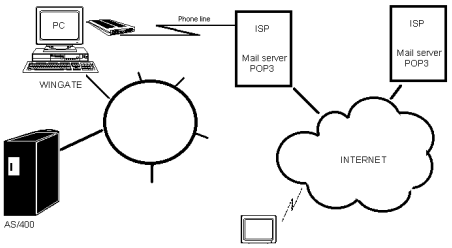
Example A).
The connection to you ISP (Internet Service Provider) is established via an ISDN router. The DNS address you are using is the address of the ISP your ISDN line is connected to.

Note - The actual mail server can also be located at a third party ISP on the net.



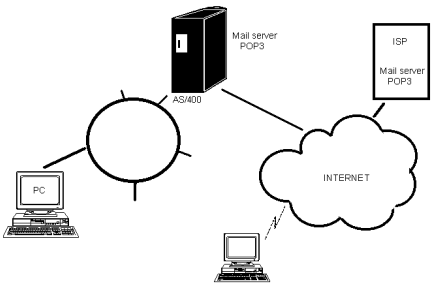
Example B).
Here is the connection to your ISP established direct via SLIP Dial up from your AS/400.

The DNS address you write in SMS BlueNote is the address of the ISP that is connected to your AS/400´s SLIP.



Example C)
The connection is established via a PC that got WINGATE installed.

The DNS address you write in SMS BlueNote is the address <u>of the actual PC</u> that is connected to your ISP.

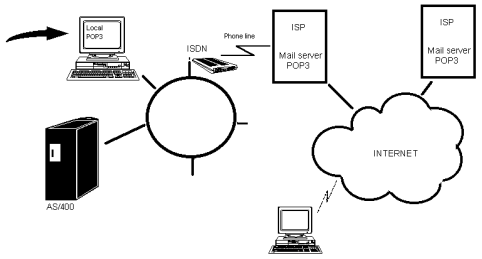


Example D)
An alternative is to connect a mail server direct on your own iSeries or AS/400.

The DNS address indicated in SMS BlueNote, is the <u>AS/400´s own IP address</u>.

This solution is only recommended to companies who already uses their AS/400 as Internet server

Example E)
Works as seen in example A. But with that difference that the AS/400 communicates with a local mail server, that handles all the outgoing communication.



See the following page for explanation of special terms.

ISDN
(**I**ntegrated **S**ervices **D**igital **N**etwork) An international telecommunications standard for transmitting voice, video and data over digital lines running at 64 Kbps. The telephone companies commonly use a 64 Kbps channel for digitized, two-way voice conversations.

ADSL
Short for A*symmetric Digital Subscriber Line,* a new technology that allows more data to be sent over existing copper telephone lines (POTS). ADSL supports data rates of from 1.5 to 9 Mbps when receiving data (known as the *downstream* rate) and from 16 to 640 Kbps when sending data (known as the *upstream* rate). ADSL requires a special ADSL modem.

Mail server
A computer in a network, that provides "post office" facilities. It stores incoming mail for distribution to users and forwards outgoing mail through the appropriate channel. The term may refer to just the software that performs this service, which can reside on a machine with other services.

DNS
(**D**omain **N**ame **S**ystem) Name resolution software that lets users locate computers on a UNIX network or the Internet (TCP/IP network) by domain name. The DNS server maintains a database of domain names (host names) and their corresponding IP addresses. In this hypothetical example, if **www.mycompany.com** were presented to a DNS server, the IP address **204.0.8.51** would be returned. DNS has replaced the manual task of updating HOSTS files in an inhouse UNIX network, and of course, it would be impossible to do this manually on the global Internet, given its size.

POP3
(**P**ost **O**ffice **P**rotocol **3**) A standard mail server commonly used on the Internet. It provides a message store that holds incoming e-mail until users log on and download it. POP3 is a simple system with little selectivity. All pending messages and attachments are downloaded at the same time. POP3 uses the SMTP messaging protocol.

ISP (Internet service provider)
An organization that provides access to the Internet. Small Internet service providers (ISPs) provide service via modem and ISDN while the larger ones also offer private line hookups (T1, fractional T1, etc.). Customers are generally billed a fixed rate per month, but other charges may apply. For a fee, a Web site can be created and maintained on the ISP's server, allowing the smaller organization to have a presence on the Web with its own domain name.

IP address
(**I**nternet **P**rotocol address) The address of a computer attached to a TCP/IP network. Every client and server station must have a unique IP address. Client workstations have either a permanent address or one that is dynamically assigned to them each dial-up session. IP addresses are written as four sets of numbers separated by periods; for example, 204.171.64.2.

SLIP
(**S**erial **L**ine **IP**) A data link protocol for dial-up access to TCP/IP networks. It is commonly used to gain access to the Internet as well as to provide dial-up access between two LANs. SLIP transmits IP packets over any serial link (dial up or private lines).

SMTP
(**S**imple **M**ail **T**ransfer **P**rotocol) The standard e-mail protocol on the Internet. It is a TCP/IP protocol that defines the message format and the message transfer agent (MTA), which stores and forwards the mail. SMTP was originally designed for only ASCII text, but MIME and other encoding methods enable program and multimedia files to be attached to e-mail messages.
SMTP servers route SMTP messages throughout the Internet to a mail server, such as POP3 or IMAP4, which provides a message store for incoming mail.

TCP/IP
(**T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol) A communications protocol developed under contract from the U.S. Department of Defense to internetwork dissimilar systems. This de facto UNIX standard, which is the protocol of the Internet, is becoming the global standard for communications.

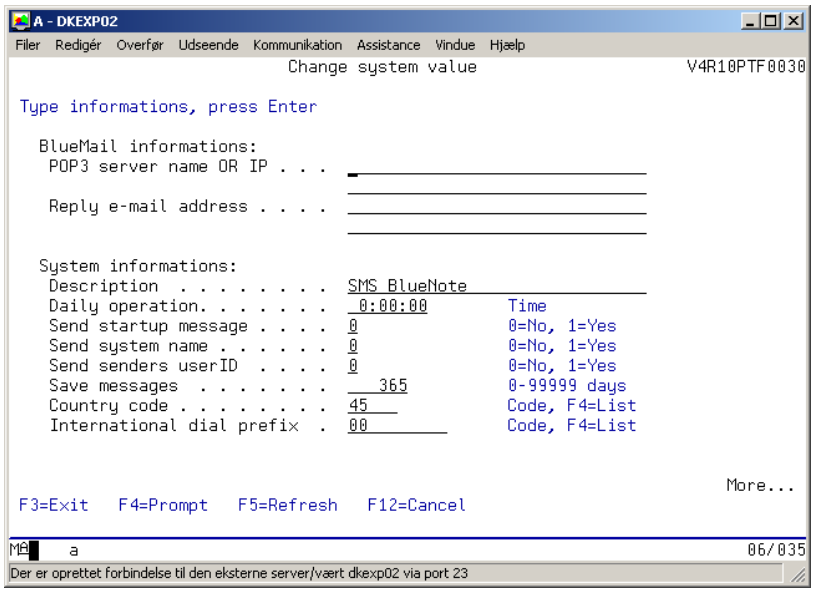
TCP provides transport functions, which ensures that the total amount of bytes sent is received correctly at the other end. UDP is an alternate transport that does not guarantee delivery. It is widely used for real-time voice and video transmissions where erroneous packets are not retransmitted.

IP provides the routing mechanism. TCP/IP is a routable protocol, which means that all messages contain not only the address of the destination station, but the address of a destination network. This allows TCP/IP messages to be sent to multiple networks within an organization or around the world. Every client and server in a TCP/IP network requires an IP address, which is either permanently assigned or dynamically assigned at startup.

9.2 Activate the SMSEmail module

Before you install the module make sure that you have checked the four bullets in the beginning of this chapter.

Open option 15 “ Work with System Values” on the menu.
Scroll to the second page.


A - DKEXP02
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Change system value V4R10PTF0030
Type informations, press Enter
BlueMail informations:
POP3 server name OR IP . . .
Reply e-mail address . . . .
System informations:
Description . . . . . SMS BlueNote
Daily operation. . . . . 0:00:00 Time
Send startup message . . . . 0 0=No, 1=Yes
Send system name . . . . . 0 0=No, 1=Yes
Send senders userID . . . . 0 0=No, 1=Yes
Save messages . . . . . 365 0-99999 days
Country code . . . . . 45 Code, F4=List
International dial prefix . 00 Code, F4=List
More...
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a 06/035
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

BlueMail information:

SMTP Server name or IP address:	The address of your SMTP server.
Reply e-mail address:	The e-mail address of you system operator. **NOTE: This must be a valid email address.**

Check also in option 4 “Work with users” that all email addresses are genuine.

For system monitoring:

1) Select option 4 "Work with users"
Find you user profile
Use 2=change and scroll to second panel.
Set the value at "E-mail Filter Level" (High number = Few Messages)
*Any value in this field - but *NONE - will also cause inbound SMS to be forwarded as email.*

or

2) Select option 8 "Work with duty plan"
Find your (active) user profile
Use 2=change
Set the value at “E-mail Filter Level" (High number = Few Messages)
The value can be typed in or you can use *DFT

For forwarding inbound SMS as email:

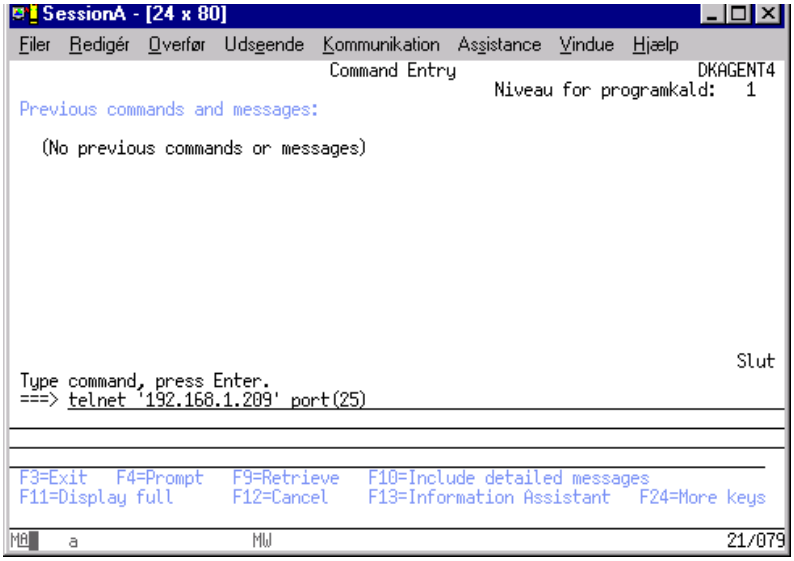
1) Select option 4 "Work with users"
Find you user profile
Use 2=change and scroll to second panel.
Set the value at “E-mail Filter Level" to *ANY

9.3 Trouble shooting the SMSemail module

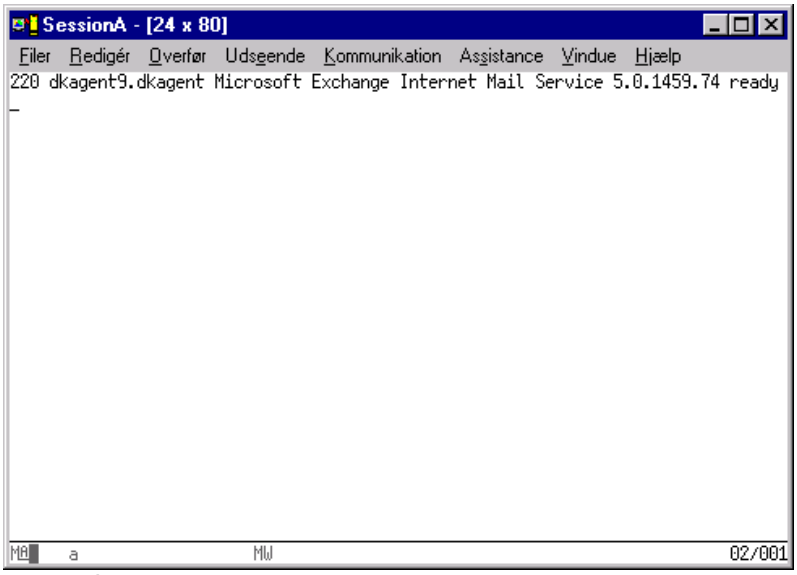
If there are problems with activating the SMSEmail module, you should try to look for 3rd party reasons.

You can run a test - using Telnet - that will show if your connection to the POP3 server is working OK.

Write: telnet '<POP 3 server ip address>' port(25) as shown:


SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Command Entry
DKAGENT4
Niveau for programkald: 1
Previous commands and messages:
(No previous commands or messages)
Slut
Type command, press Enter.
===> telnet '192.168.1.209' port(25)
F3=Exit F4=Prompt F9=Retrieve F10=Include detailed messages
F11=Display full F12=Cancel F13=Information Assistant F24=More keys
MA a MW 21/079

2) The system must answer"220 xxxxxx " as shown below:

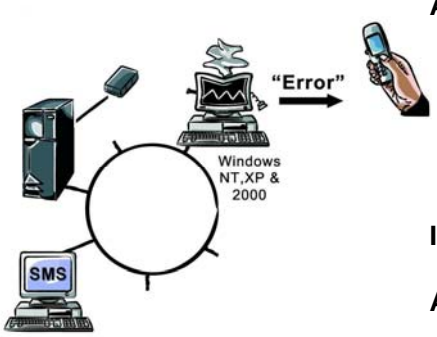

SessionA - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
220 dkagent9.dkagent Microsoft Exchange Internet Mail Service 5.0.1459.74 ready
MA a MW 02/001

xxxxxx is your server name.

This will confirm that you have access.

End the session by pressing enter
Type QUIT and Enter.

Chapter 10. Windows Monitor.



Application, System and Security messages

Category:
Information
Warning
Error

Integrated to SMS BlueNote filter system

All SMS are sent from iSeries or AS/400

SMS BlueNote is installed on your AS/400 and it is from there up to you to decide which other units in the network that are to be monitored. You are simply installing a "probe" on the Windows (NT, 2000 & XP) Server or workstation. All movements from the event viewer in question will be transferred to SMS BlueNote on your AS/400. A filter will ensure that only the important messages - e.g. disk error or virus warnings - are forwarded as SMS to the IT operator on duty.

The system will also "listen for the heartbeat" of the monitored server or workstation. The IT operator will instantly be flagged by SMS in case a monitored unit is unexpectedly removed from the network.

The constant signal between server/workstation and SMS BlueNote makes it also possible to monitor on performance on the unit in question.

10.1 Activate the Windows Monitor

The "Windows Monitor" is automatically installed when you install the PC client for SMS BlueNote on the Server or Workstation.

Note: The installation itself will not activate the monitor. The "Windows Monitor" must be activated manually.

You must also make sure that you're the Server /Workstation is covered by your license. SMS BlueNote will note register/Monitor the Server/Workstation if the number of Windows Monitors exceeds the number stated in the key code Option 50.

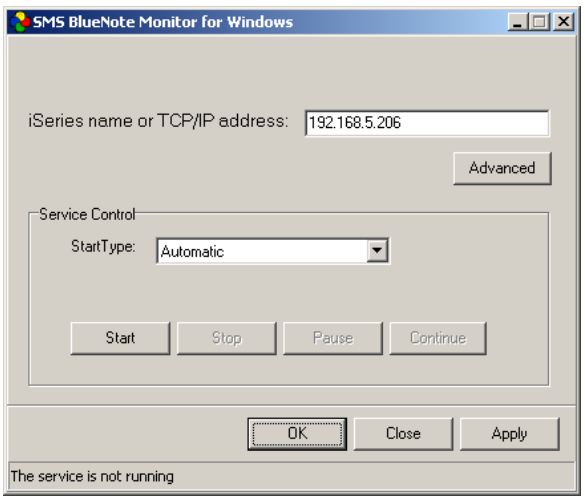
Do as follows to activate the Windows Monitor

Open BlueNote in your Program List.

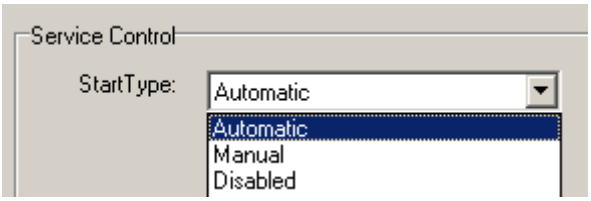
Open ”Windows Monitor Configuration”

Press, ”Start” to activate the Monitor. The Server /Workstation will be listed as ”Online” in Option 91 ”Work with Server Status”

Press “Stop” to deactivate the ”Windows Monitor”. It can e.g. be necessary to deactivate the ”Windows Monitor” if you want to move you license to another Server/Workstation.



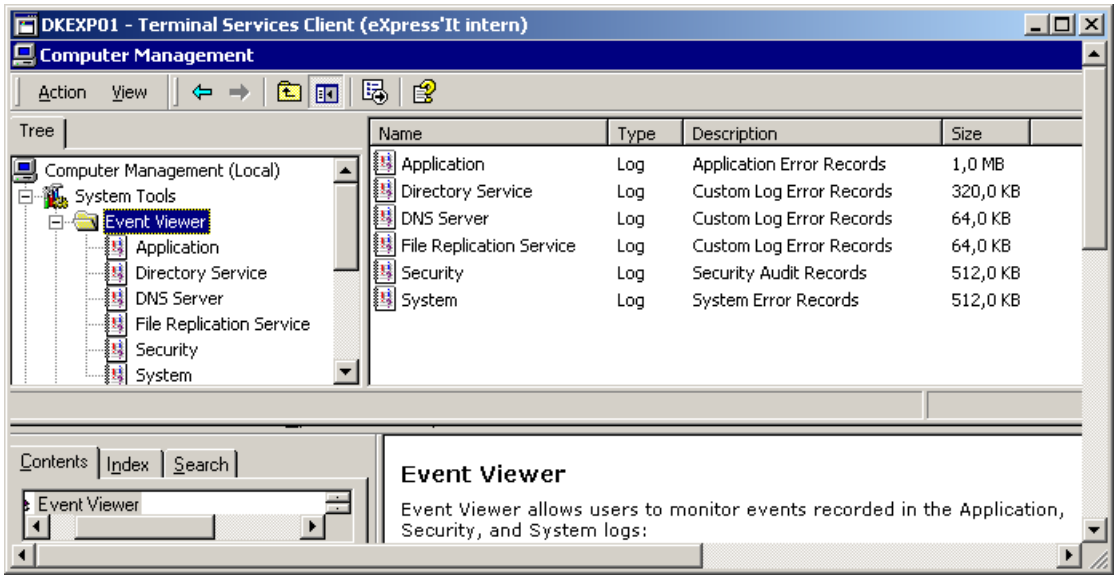
Use ”Start Type” to decide if the Monitor should be restarted automatically or manually after the Server/Workstation has been ”booted”.



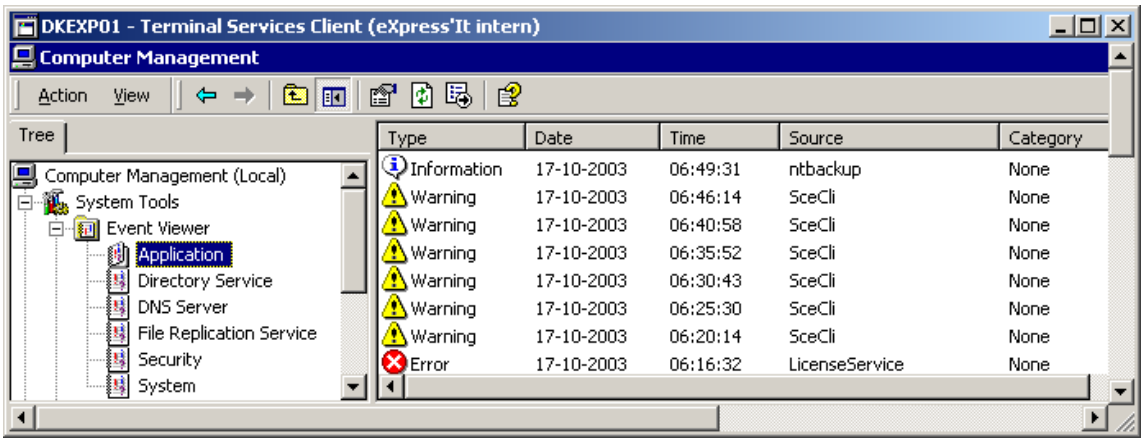
The Windows Monitor will copy all the files from the Event Log to the iSeries. The clean up rutine in option 15 will only have effect on files older than the oldest file in the Event Log.

10.2 View the Event log

Use the event log to collect information regarding problems related to hardware, software and system in general.



Windows NT, 2000 & XP will register the events as Information, Warning & Error in different log files. This is NOT a static list – other log types can be added all depending on the system.



Using Event Viewer and event logs, you can gather information about hardware, software, and system problems and monitor Windows security events. Windows records as standard events in three kinds of logs:

Application log
The application log contains events logged by programs. For example, a database program might record a file error in the programs log. Program developers decide which events to monitor.

Security log
The security log contains valid and invalid logon attempts as well as events related to resource use, such as creating, opening, or deleting files or other objects. For example, if you have enabled logon and logoff auditing, attempts to log on to the system are recorded in the security log.

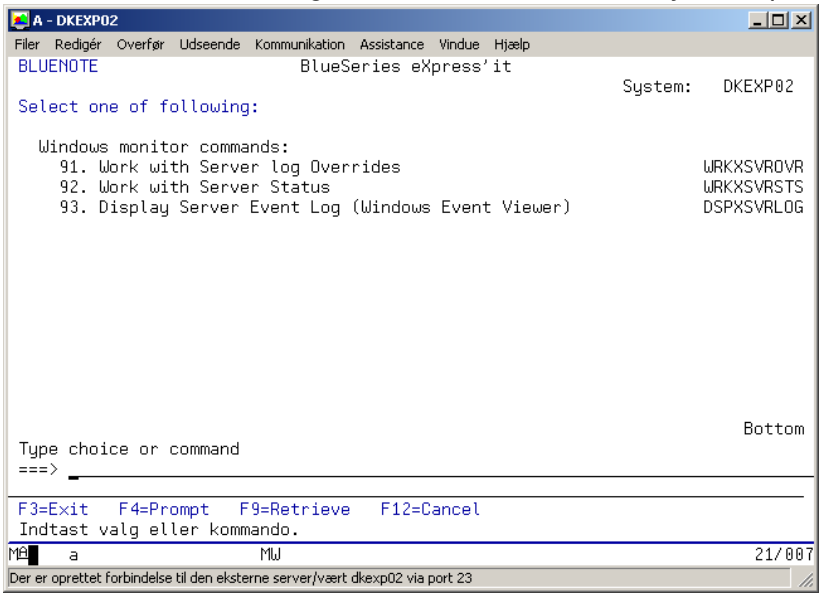
System log
The system log contains events logged by the Windows 2000 system components. For example, the failure of a driver or other system component to load during startup is recorded in the system log. The event types logged by system components are predetermined by Windows 2000.

The different log's operates with five different event types.

Type	Description
Error	A significant problem, such as loss of data or loss of functionality. For example, if a service fails to load during startup, an error will be logged.
Warning	An event that is not necessarily significant, but may indicate a possible future problem. For example, when disk space is low, a warning will be logged.
Information	An event that describes the successful operation of an application, driver, or service. For example, when a network driver loads successfully, an Information event will be logged.
Success Audit	An audited security access attempt that succeeds. For example, a user's successful attempt to log on the system will be logged as a Success Audit event.
Failure Audit	An audited security access attempt that fails. For example, if a user tries to access a network drive and fails, the attempt will be logged as a Failure Audit event.

10.3 Work with the Windows Log.

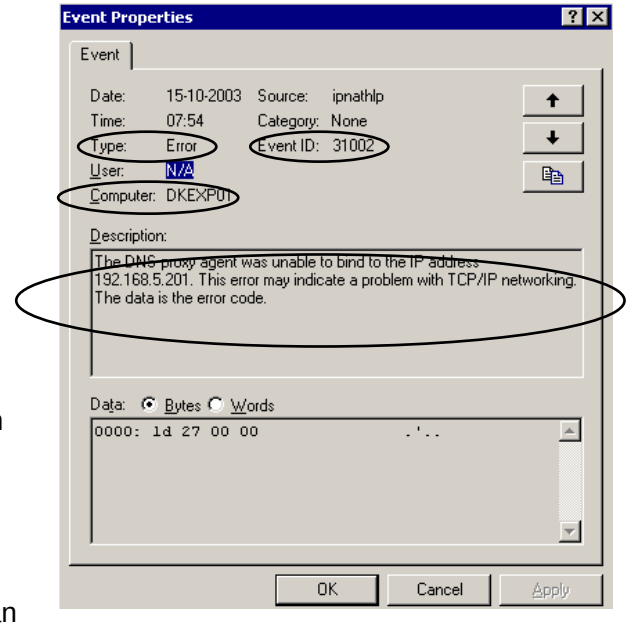
You control the monitoring of the Server/Workstation by these panels:


A - DKEXP02
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE BlueSeries eXpress'it
System: DKEXP02
Select one of following:
Windows monitor commands:
91. Work with Server log Overrides WRKXSVROVR
92. Work with Server Status WRKXSVRSTS
93. Display Server Event Log (Windows Event Viewer) DSPXSVRLOG
Bottom
Type choice or command
===>
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
Indtast valg eller kommando.
MA a MW 21/007
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

You will on the mobile phone receive a SMS containing:
The name of the unit e.g. **LDKEXP01**
Type; "**W**" for Warning, "**E**" for Error and "**I**" for Information.
Event ID: e.g. "31002"
Description. As much of the description as possible

The syntax is *Computer name; Type; ID; Description*

Example of an SMS:
The enclosed event will generate a SMS whit the following text:


Event Properties
Event
Date: 15-10-2003 Source: ipnathlp
Time: 07:54 Category: None
Type: Error Event ID: 31002
User: N/A
Computer: DKEXP01
Description:
The DNS proxy agent was unable to bind to the IP address 192.168.5.201. This error may indicate a problem with TCP/IP networking. The data is the error code.
Data: Bytes Words
0000: 1d 27 00 00 .'..
OK Cancel Apply

DKEXP01; E; 31002; The DNS proxy agent was unable to bind to the IP address 192.168.5.201. This error may indicate a problem with TCP/IP networking. The data is

The SMS text is shortened in this example due to the 160-character limit.

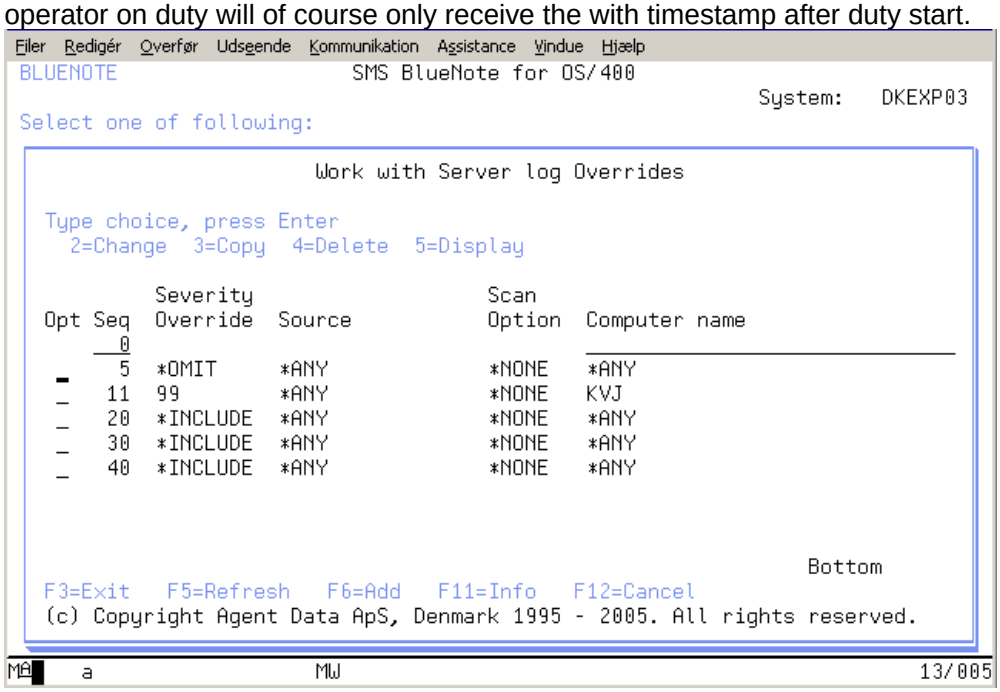
There will be a small deviation in the "Time" because SMS BlueNote uses the timestamp from the GSM operator rater from the Server or Workstation

If the computer looses connection (Dead Link) by accident a message will be sent to the system operator (normally QSYSOPR). This message can be picked up by SMS BlueNote standard procedure. Example: A power failure causes a situation where a Server or Workstation looses connection the network. SMS BlueNote Windows monitor react by sending the message ID "MON1001" (Severity 99) to *SYSOPR message queue.
Read chapter 5 on how to handle this message.

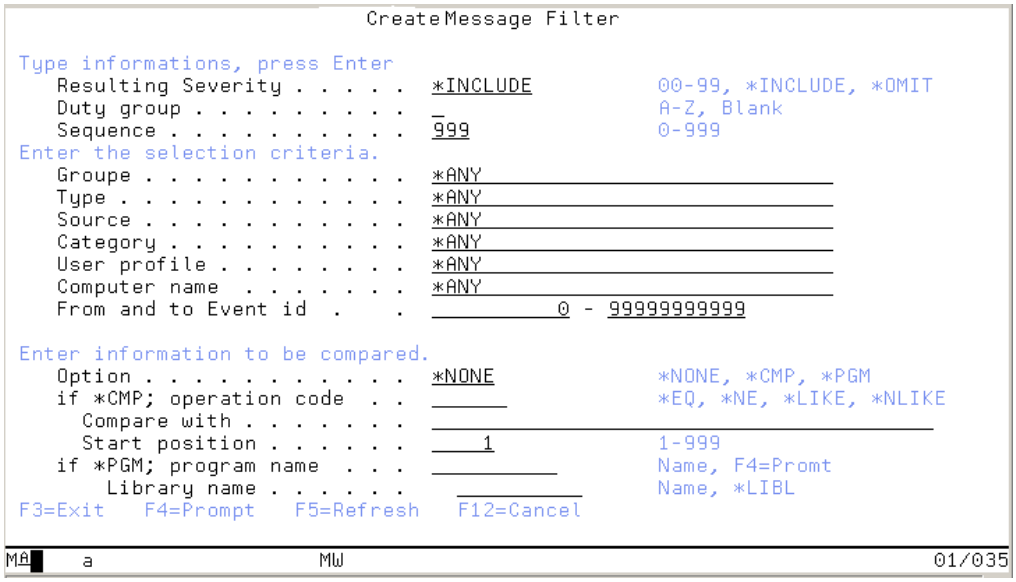
10.3.1 Work with Windows log filter

Use option 91 ” Work with Server log Overrides” to define the filter and to determine which messages that are to be sent to the IT operator on duty.

The monitor software will copy all Event Log Data onto the AS/400, but the IT operator on duty will of course only receive the with timestamp after duty start.


Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE
SMS BlueNote for OS/400
System: DKEXP03
Select one of following:
Work with Server log Overrides
Type choice, press Enter
2=Change 3=Copy 4=Delete 5=Display
Opt Seq Severity Override Source Scan Option Computer name
0
5 *OMIT *ANY *NONE *ANY
11 99 *ANY *NONE KVJ
20 *INCLUDE *ANY *NONE *ANY
30 *INCLUDE *ANY *NONE *ANY
40 *INCLUDE *ANY *NONE *ANY
Bottom
F3=Exit F5=Refresh F6=Add F11=Info F12=Cancel
(c) Copyright Agent Data ApS, Denmark 1995 - 2005. All rights reserved.
MA a MW 13/005

Press F6 to create a message filter. First time installation will not present you with any filters and no Windows messages will be sent. When you set out to define the filters, have in mind that it is advisable to “be careful when opening the bag”. You can e.g. chose to only select “Error” as “Type”.


Create Message Filter
Type informations, press Enter
Resulting Severity *INCLUDE 00-99, *INCLUDE, *OMIT
Duty group A-Z, Blank
Sequence 999 0-999
Enter the selection criteria.
Groupe *ANY
Type *ANY
Source *ANY
Category *ANY
User profile *ANY
Computer name *ANY
From and to Event id 0 - 99999999999
Enter information to be compared.
Option *NONE *NONE, *CMP, *PGM
if *CMP; operation code *EQ, *NE, *LIKE, *NLIKE
Compare with
Start position 1 1-999
if *PGM; program name Name, F4=Promt
Library name Name, *LIBL
F3=Exit F4=Prompt F5=Refresh F12=Cancel
MA a MW 01/035

Enter the information and press Enter.

Resulting Severity:
Windows have no severity level, as you know it from the OS/400. So whenever you create a rule you add a ”Severity Level” that will be linked to this particular rule. This will enable SMS BlueNote’s standard severity handling to take action. You can also choose to determine that the rule means that the message is permanently included (*INCLUDE) or omitted (*OMIT).

Duty group — Duty Grups A-Z can be used to special fields of responsibillity.

Blank will supervise all events included in the filter.

Example:
Smith is Duty Group “A” and monitors PC’s.
Jones is Duty Group “B” and monitors WINDOWS Servers
Jensen has “Blank” value and monitors both above including the iSeries or AS/400.

Sequence — The sequence number of this particular message filter. Low value is processed before a high value.

Selection criteria. — *These criteria match the corresponding log on the server / Workstation.*
We refer to the Windows documentation regarding Event Log.

Group	Application-, Security – or Systemlog.
Type .	”Error”, ”Warning” or ”Information”
Source	The original source of the message e.g. ”Browser”
Category	Classification of the Event.
User Profile	User profile or the Job
Computer name	The name of the particular Server or Workstation
Event ID. From & To	The unique Event ID for this filter.

Enter values to be compared in the Event ID.

Option	*NONE	*NONE, *CMP, *PGM
if *CMP; operation code . .		*EQ, *NE, *LIKE, *NLIKE
Compare with.		
Start position	1	1-999
if *PGM; program name . . .		Name,
Library name		Name,

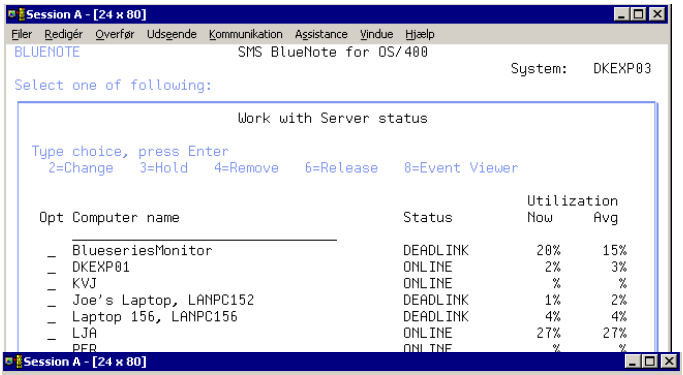
Read also 9.3.3 “Test the Window Monitor” on how to run a an online test on your filter (WRKXSVROVR).

10.3.2 Work with Server Status

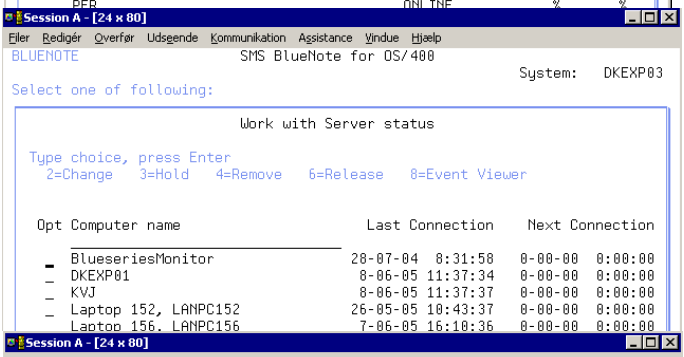
Menu Option 92 ” Work with Server Status”.
The SMS BlueNote Basic and Complete license comes with one free Windows Monitor but it is possible to purchase and add as many Windows Monitors you like.

Use this panel to control which, Servers or workstations you want monitored. You can use 2=Change to give the unit a more comprehensive name e.g. “Joe’s Laptop”. The license system will simply count the “online units” and you will get a full overview here. A unit can be temporarily neutralized by using 3=Hold and 6=Release. The monitor will however be reactivated if the Server/workstation is restarted. Use the controls on the Windows Monitor software to deactivate a Windows Monitor permanently.

“Work with Server Status” gives you a view on the Utilization on the Server / Workstation
Avg. is the average over the last minute.

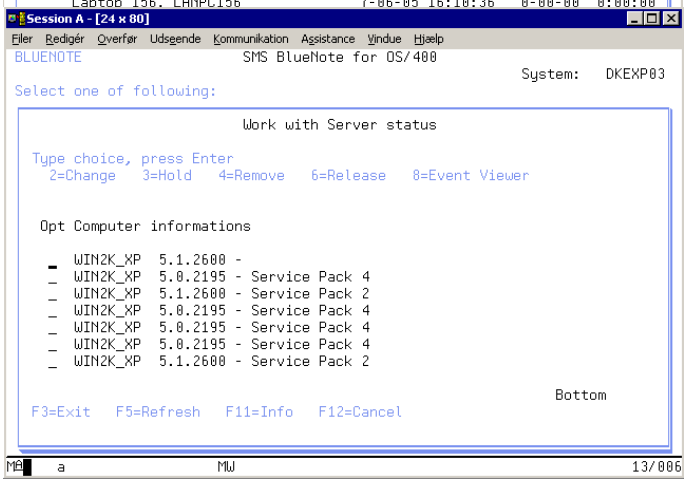

Session A - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote for OS/400
System: DKEXP03
Select one of following:
Work with Server status
Type choice, press Enter
2=Change 3=Hold 4=Remove 6=Release 8=Event Viewer
Opt Computer name Status Utilization Now Avg
_ BlueseriesMonitor DEADLINK 20% 15%
_ DKEXP01 ONLINE 2% 3%
_ KVJ ONLINE % %
_ Joe's Laptop, LANPC152 DEADLINK 1% 2%
_ Laptop 156, LANPC156 DEADLINK 4% 4%
_ LJA ONLINE 27% 27%

Press F11 for more info.


Session A - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote for OS/400
System: DKEXP03
Select one of following:
Work with Server status
Type choice, press Enter
2=Change 3=Hold 4=Remove 6=Release 8=Event Viewer
Opt Computer name Last Connection Next Connection
_ BlueseriesMonitor 28-07-04 8:31:58 0-00-00 0:00:00
_ DKEXP01 8-06-05 11:37:34 0-00-00 0:00:00
_ KVJ 8-06-05 11:37:37 0-00-00 0:00:00
_ Laptop 152, LANPC152 26-05-05 10:43:37 0-00-00 0:00:00
_ Laptop 156, LANPC156 7-06-05 16:10:36 0-00-00 0:00:00

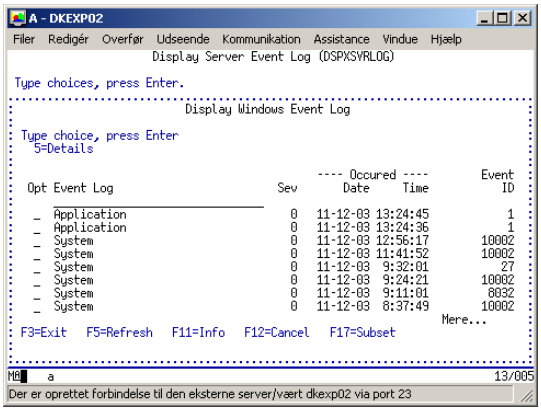
Read when the units have been polled last.

Press F11 for more info.


Session A - [24 x 80]
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
BLUENOTE SMS BlueNote for OS/400
System: DKEXP03
Select one of following:
Work with Server status
Type choice, press Enter
2=Change 3=Hold 4=Remove 6=Release 8=Event Viewer
Opt Computer informations
_ WIN2K_XP 5.1.2600 -
_ WIN2K_XP 5.0.2195 - Service Pack 4
_ WIN2K_XP 5.1.2600 - Service Pack 2
_ WIN2K_XP 5.0.2195 - Service Pack 4
_ WIN2K_XP 5.0.2195 - Service Pack 4
_ WIN2K_XP 5.0.2195 - Service Pack 4
_ WIN2K_XP 5.1.2600 - Service Pack 2
Bottom
F3=Exit F5=Refresh F11=Info F12=Cancel
MA a MW 13/006

View the ”Service Pack” information for each server workstation.

Use ”8=Event Viewer” to view a detailed Event log for each Server or Workstation. The log contains all three types: Application, System and Security.

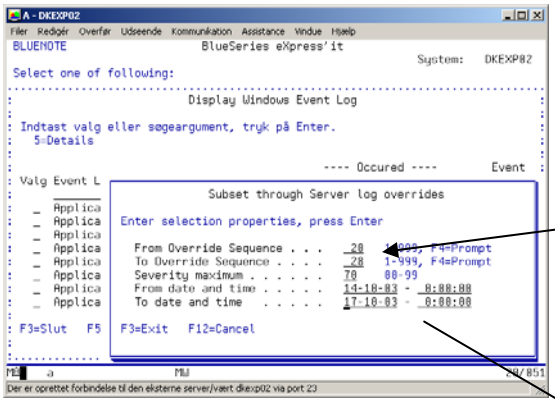

A - DKEXP02
Filer Redigér Overfør Udseende Kommunikation Assistance Vindue Hjælp
Display Server Event Log (DSPXSVRLOG)
Type choices, press Enter.
Display Windows Event Log
Type choice, press Enter
5=Details
Opt Event Log Sev Occured Date Occured Time Event ID
_ Application 0 11-12-03 13:24:45 1
_ Application 0 11-12-03 13:24:36 1
_ System 0 11-12-03 12:56:17 10002
_ System 0 11-12-03 11:41:52 10002
_ System 0 11-12-03 9:32:01 27
_ System 0 11-12-03 9:24:21 10002
_ System 0 11-12-03 9:11:01 8032
_ System 0 11-12-03 8:37:49 10002
Mere...
F3=Exit F5=Refresh F11=Info F12=Cancel F17=Subset
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

10.3.3 Test the Window Monitor (WRKXSVROVR)

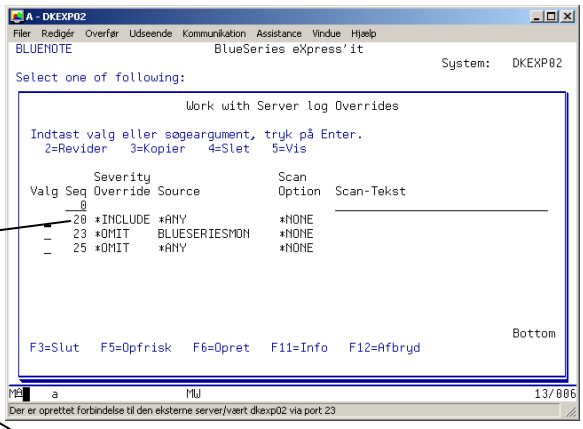
You can use this feature to test on “yesterday’s data” to learn your Windows Monitor Filter (WRKXSVROVR Option 91) works – without actually sending any SMS.

- Select option 92. Work with Server Status
- Use 8=Event Viewer on the PC / Server that should be tested.
- Press F17=Subset

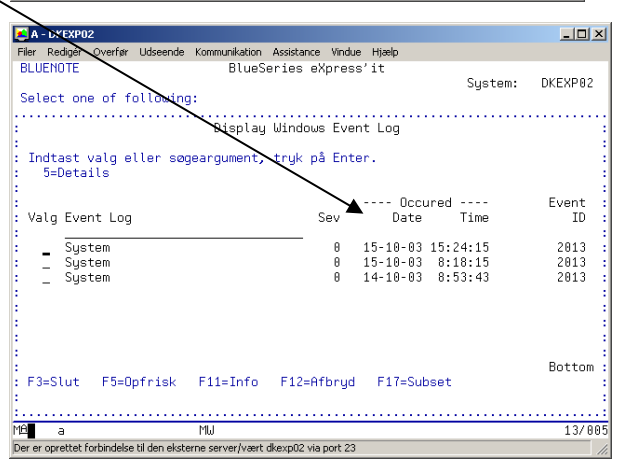
Press F17=Subset.


A - DKEXP02
BLUENOTE BlueSeries eXpress'it
System: DKEXP02
Select one of following:
Display Windows Event Log
Indtast valg eller søgeargument, tryk på Enter.
5=Details
Valg Event L
Subset through Server log overrides
Enter selection properties, press Enter
From Override Sequence . . . 20 1-999, F4=Prompt
To Override Sequence . . . . 28 1-999, F4=Prompt
Severity maximum 70 00-99
From date and time . . . . . 14-10-03 - 0:00:00
To date and time . . . . . 17-10-03 - 0:00:00
F3=Slut F5
F3=Exit F12=Cancel
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

WRKXSVROVR


A - DKEXP02
BLUENOTE BlueSeries eXpress'it
System: DKEXP02
Select one of following:
Work with Server log Overrides
Indtast valg eller søgeargument, tryk på Enter.
2=Revider 3=Kopier 4=Slet 5=Vis
Valg Seq Severity Override Source Scan Option Scan-Tekst
20 *INCLUDE *ANY *NONE
23 *OMIT BLUESERIESMON *NONE
25 *OMIT *ANY *NONE
Bottom
F3=Slut F5=Opfrisk F6=Opret F11=Info F12=Afbryd
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

Enter sequence, severity and period e.g. the last three days.
It will result in a list of messages that would have been sent according to the rules set in the message filter (WRKXSVROVR).


BLUENOTE BlueSeries eXpress'it
System: DKEXP02
Select one of following:
Display Windows Event Log
Indtast valg eller søgeargument, tryk på Enter.
5=Details
Valg Event Log Sev Occured Date Occured Time Event ID
System 0 15-10-03 15:24:15 2013
System 0 15-10-03 8:18:15 2013
System 0 14-10-03 8:53:43 2013
Bottom
F3=Slut F5=Opfrisk F11=Info F12=Afbryd F17=Subset
Der er oprettet forbindelse til den eksterne server/vært dkexp02 via port 23

Chapter 11 Various

11.1 Clear the SMS log MSG00

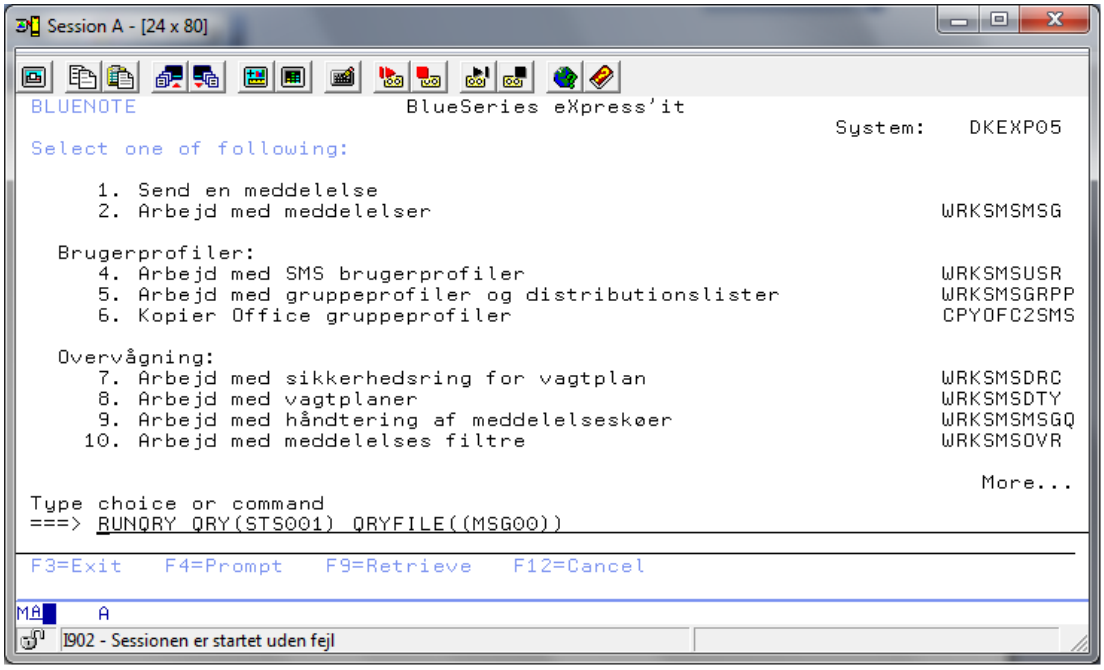
You can find your selves in a situation, where a program has generated several hundred messages that you would like to delete in one go.
Do as follows:

Stop the Subsystem
Write : CLRPFM MSG00
Start the Subsystem

Note.
CLRPFM MSG00 will delete everything in the log!

11.2 Query the SMS log MSG00

Gateway user that send with different user ID's through the same entry point can create their owns statistics on the SMS log with Query STS001.


Session A - [24 x 80]
BLUENOTE
BlueSeries eXpress'it
System: DKEXP05
Select one of following:
1. Send en meddelelse
2. Arbejd med meddelelser WRKSMSMSG
Brugerprofiler:
4. Arbejd med SMS brugerprofiler WRKSMSUSR
5. Arbejd med gruppeprofiler og distributionslister WRKSMSGRPP
6. Kopier Office gruppeprofiler CPYOFC2SMS
Overvågning:
7. Arbejd med sikkerhedsring for vagtplan WRKSMSDRC
8. Arbejd med vagtplaner WRKSMSDTY
9. Arbejd med håndtering af meddelelseskøer WRKSMSMSGQ
10. Arbejd med meddelelses filtre WRKSMSOVR
More...
Type choice or command
===> RUNQRY QRY(STS001) QRYFILE((MSG00))
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
MA A
I902 - Sessionen er startet uden fejl

RUNQRY QRY(STS001) QRYFILE((MSG00))

11.3 Trace.

Situations can arise where is it can be practical for the Support Team to view a ”trace” – that is a description of the communication between SMS BlueNote and the SMS center of your GSM operator.

Do as follows:

Stop SMS BlueNote subsystem. (use option 18)

Start the “Trace” for a line with the command:

CHGDTAARA DTAARA(ASYNCDBG) VALUE('1')

Restart the subsystem (use option 17)

Try to send a SMS message from menu option 1.

Stop the subsystem (use option 18)

WRKSPLF BLUEBOXUSR

Find the file “QPCSMPRT” and send it to support@agentdata.com

End the ”Trace” for the line:

CHGDTAARA DTAARA(ASYNCDBG) VALUE('0')

Restart the subsystem (use option 17)

******
Note
The user profile that creates the trace must have *SERVICE authority.

11.4 End the jobs for Web Client, PC Client and Windows Monitor.

The jobs for the Web client, PC Client and Windows Monitor can be terminated manually.

Set the following data areas to zero ’0’

STRPCCLI - Start PC client Server in Subsystem
STRWEBSVR - Start WEB server in Subsystem
STRWINMON - Start WINMON in Subsystem

They are all found in the database library, normally “SMSDB”.

(The data areas will be reset after each software upgrade)

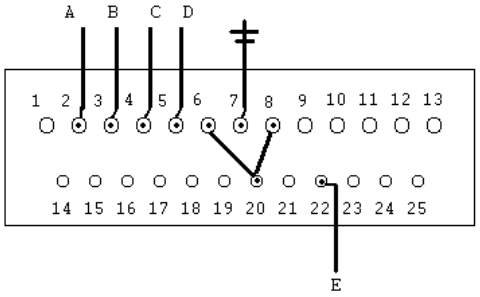
11.5 Remove the software from your machine.

The following objects must be removed:

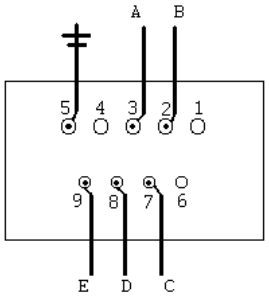
- Library SMS – Use command DLTLIB
- Library SMSDB - Use command DLTLIB
- Library SMSDBnnn Use command DLTLIB (where nnn is serial number 001-999)
- Object SMS *MENU from library QGPL (Use command DLTMNU)
- Directory /BlueNote and all subdirs – Use command edtf '/bluenote*' and use option “9=Recursive Delete” next to the directory BlueNote.
- RMVAJE SBSD(QCTL) JOB(STRSMS)
- Line, controller and device for the communication – Use commands DLTLIND, DLTCTLD and DLTDEVD.
- Remove the BLUEBOXUSR – use command DLTUSRPRFF BLUEBOXUSR. This command should remove the user profile and the attached message queue as well, but sometimes the message queue remains after deleting the user profile. To remove the message queue use the command DLTMSGQ MSGQ(BLUEBOXUSR).

11.6 Connection Cable.

A special connection cable is required between the GSM hardware and the V.24 (RS 232) line. This cable can be provided by System & Method (in EU only) or produced locally.



DB25 Female



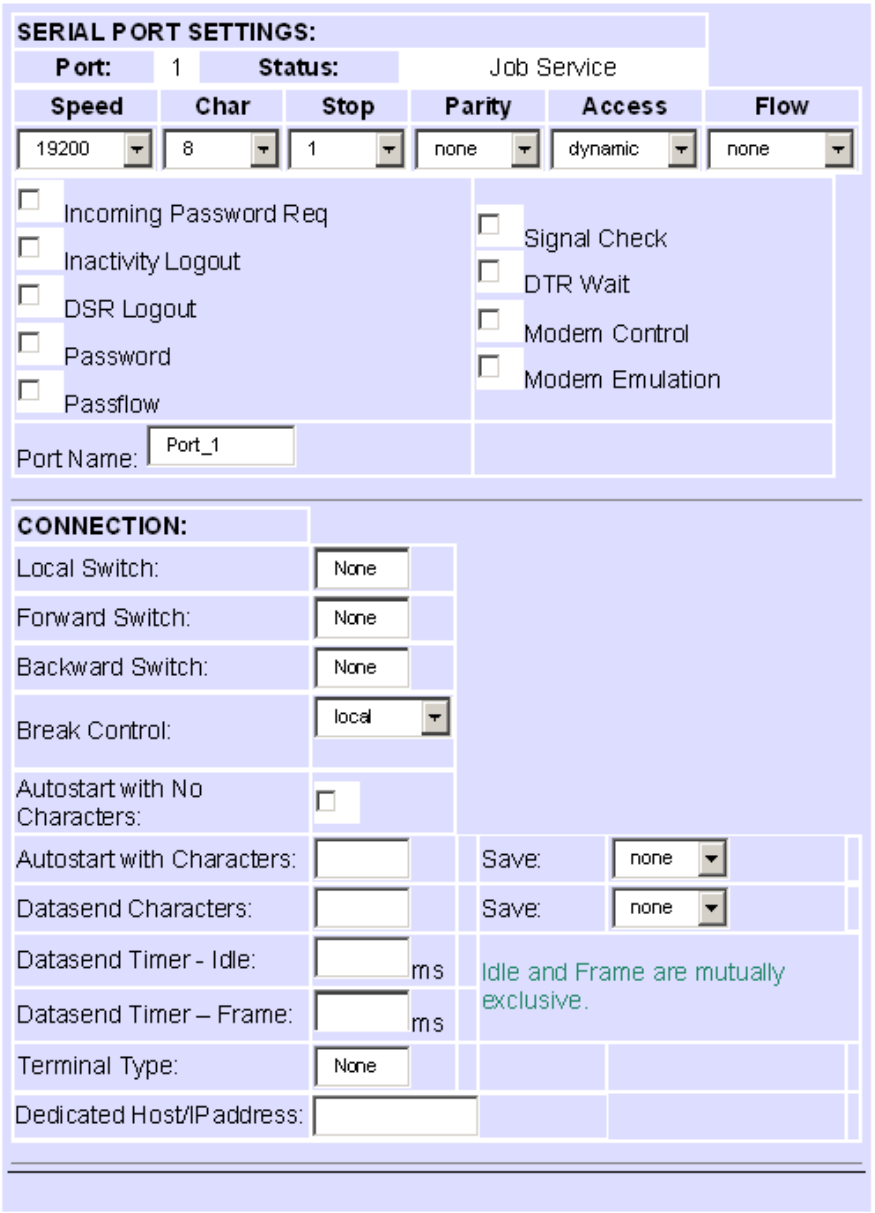
DB9 Male

11.7 Configure Lantronix MMS100.

First you need to set the TCP/IP address for the device server. Lantronic has a configuration tool called EZwebCon. Launch it and use “Browse the network” and assign the ip address.

The Lantronix has a web configuration interface that is available from a browser:

* Note ⇨



*** NOTE:**

Different values for **Speed** are used of different GSM terminals.

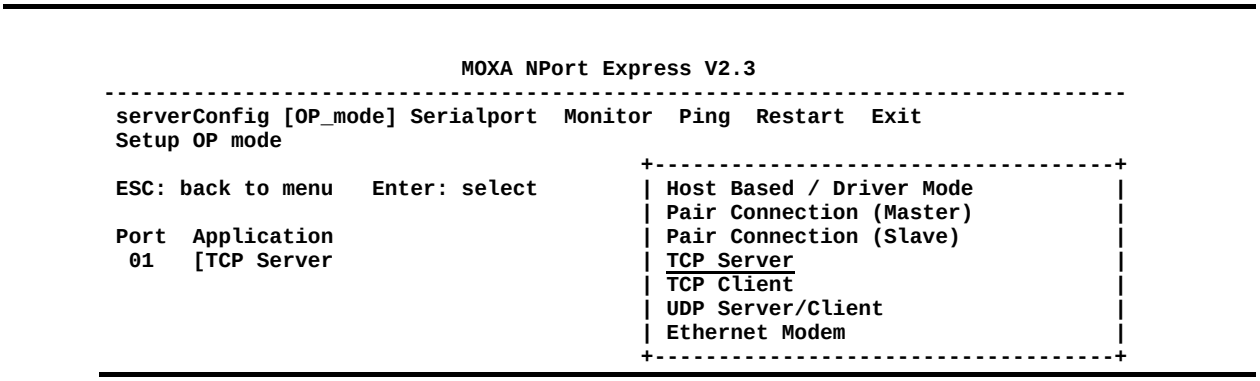
Use the Speed value 19200 for Falcom TWIST and Siemens TC/MC 35 terminals.
Use the Speed value 9600 for Falcom Tango terninals.

11.8 Configure NPort-DE311.

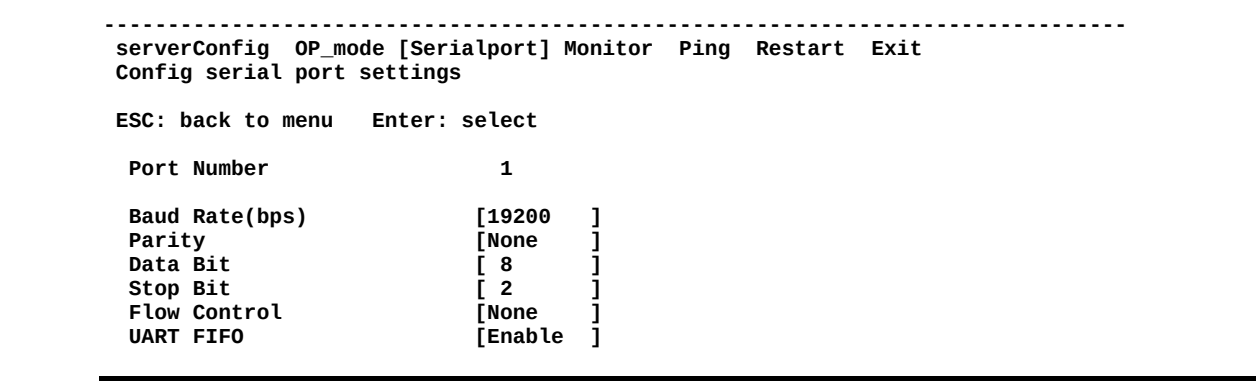
Configure Nport-DE311

The Nport also have a web configuration interface which are available from a browser – that, however is only available in new firmware versions.

For older versions you can use the TELNET configuration from a Windows prompt:



Moxa NPort Express V2.3


serverConfig OP_mode [Serialport] Monitor Ping Restart Exit
Config serial port settings
ESC: back to menu Enter: select
Port Number 1
Baud Rate(bps) [19200]
Parity [None]
Data Bit [8]
Stop Bit [2]
Flow Control [None]
UART FIFO [Enable]

Restart the Nport…..

*** End of Manual ***